APPENDIX J

Multimodal Transportation Impact Analysis Report

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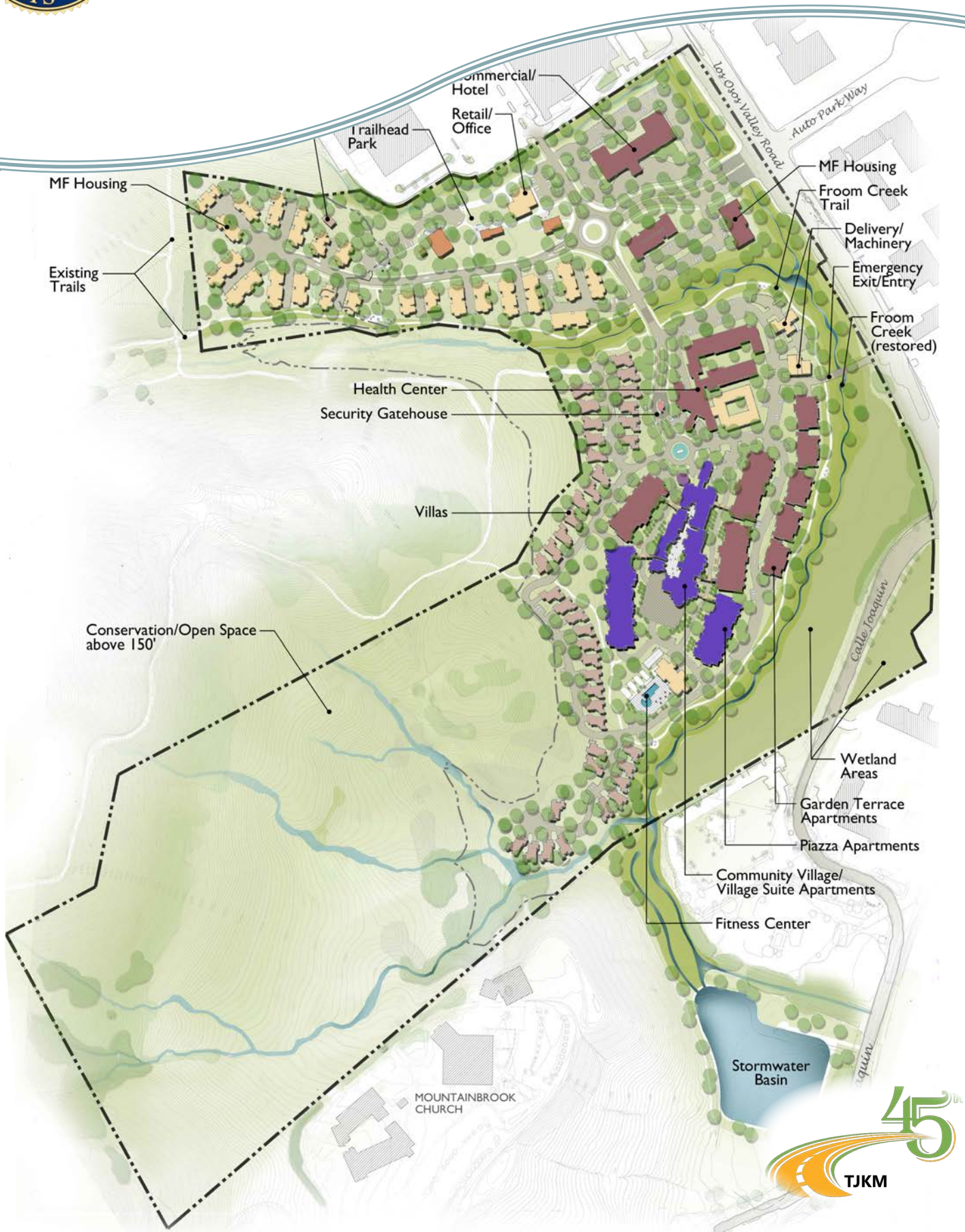
Froom Ranch Specific Plan Traffic Impact Study

Draft Report – October 24, 2019



TJKM

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Appendix B – Multimodal Level of Service Analysis Sheets

Appendix C – Multimodal Roadway Segment Analysis Sheets (Highway Capacity Software 6th Edition)

Appenidx D – Freeway Mainline and Ramp Analysis Calculation Sheets (Highway Capacity Software 6th Edition)

Appendix E – Freeway Weaving Section Operation Sheets (Leisch Method)

Appendix F – VMT Calculation Sheets

1.0 EXECUTIVE SUMMARY

The purpose of this report is to describe the transportation impact study (TIS) conducted for the proposed *Froom Ranch Specific* Plan (FRSP), also referred to as the "proposed project".

1.1 REPORT OVERVIEW

This report is divided into the following sections:

- **Section 1 Executive Summary** provides an overview of the report, study scenarios, and key findings.
- **Section 2 Project Description** summarizes the proposed land uses, site access and proposed transportation network changes that would be installed with the proposed project.
- **Section 3 Transportation Analysis** describes the transportation setting, study scenarios, analysis methodology, criteria for determining the level of significance, transportation impact findings and recommended transportation mitigations for each analysis scenario.

1.2 STUDY SCENARIOS

The information for the analysis is based on current travel volume and land use data provided by the City of San Luis Obispo, and multi-modal operations analysis, future year travel demand modeling, and review and of site access and multi-modal impacts evaluated by TJKM Transportation Consultants. The following scenarios are evaluated as part of this TIS:

- Existing Conditions
- Existing plus Project Conditions
- Near Term (2025) Scenario 1 Conditions (includes Prado Road Overcrossing of US 101 and northbound on/off ramps to/from US 101)
- Near Term (2025) Scenario 1 plus Project Conditions
- Near Term (2025) Scenario 2 Conditions (no Prado Road Overcrossing of US 101)
- Near Term (2025) Scenario 2 plus Project Conditions
- Cumulative (2035) Conditions (includes Prado Overcrossing of US 101 and provision of northbound and southbound US 101 on/off ramps)
- Cumulative (2035) plus Project Conditions

1.3 IMPACTS & MITIGATIONS

As described in section 3.3.2, the Project is forecasted to generate 343 a.m. and 477 p.m. peak hour "person trips" on the surrounding road network, including trips made via bicycle, motor vehicle, carpool, pedestrian and transit, including 220 a.m. and 277 p.m. net new peak hour motor vehicle trips on the surrounding road network.

Based on the impact findings for analysis scenarios that include the proposed project: locations where significant transportation impacts are anticipated with the proposed project were identified—including what project phase triggers said impacts—and potential mitigation measures were recommended for purposes of reducing the level of significance to "less than significant with mitigation".

Table 1-1 provides a summary of the significant transportation impacts and recommended mitigation measures. **Table 1-2** provides a summary of additional transportation improvements that will be required as part of the conditions of approval.

Table 1-1 - Mitigation Summary Table

Location	Trigger	Mode	Impact	Mitigation Measure
Existing Plus Project Impacts and Mitigation Measures				
Intersection #10: Los Osos Valley Road & US 101 SB Ramps	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the existing southbound right queue and westbound right queue in the p.m. peak hour.	Extend the westbound left turn pocket to 320 feet, extend the southbound right turn pocket to 140 feet, and optimize traffic signal coordination between LOVR/Calle Joaquin and LOVR/US 101 SB Ramps. Project is responsible for implementation prior to Phase 4 or fair-share contribution if constructed sooner by others. *Requires Caltrans approval and coordination*.[1]
Intersection #13: S Higuera Street & Vachell Lane	Phase 4	Auto	Side-street stop-sign controlled intersection operates at an unacceptable Automobile Level of Service. Project traffic would increase the volume/capacity (v/c) ratio by 0.01 and side-street approach volumes exceed signal warrant thresholds.	Restrict Vachell Lane motor vehicle access to right-in/right-out only, extend Buckley Road from Vachell to S. Higuera and install traffic signal at Buckley/S. Higuera. Project is responsible for implementation prior to Phase 4 or fair-share contribution if constructed sooner by others. *Requires County approval and coordination*
Intersection #14: S Higuera Street & Suburban Street	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the existing westbound left queue in the p.m. peak hour.	Restripe westbound approach to extend left- and right-turn pocket storage to 250 feet. Project is responsible for implementation prior to Phase 4 or fair-share contribution if constructed sooner by others.
Intersection #15: S Higuera Street & Tank Farm Road	Phase 2 Phase 4	Bicycle Auto (Queue)	Project traffic would exacerbate existing unacceptable intersection LOS for bicycles approaching the intersection westbound on Tank Farm Road. Addition of project traffic will exacerbate the southbound left queue that would exceed capacity in the a.m. and p.m. peak hours.	Extend the westbound bike lane to the intersection and install bike box to facilitate bicycle left-turn movements. Construct Prado Road Interchange and NB US 101 ramps. Mitigate to maximum extent feasible with installation of a second southbound left-turn lane. Project is responsible for implementation of bicycle improvements prior to Phase 2, and addition of the southbound left-turn lane and Prado Interchange prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others. ***This impact under Existing plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***

Location	Trigger	Mode	Impact	Mitigation Measure
Intersection #16: S Higuera Street & Prado Road	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the northbound left queue and southbound left queue in the a.m. and p.m. peak hours	Widen intersection to provide dual northbound left-turn lanes (requires replacement of Prado Road Bridge just west of S. Higuera). Project is responsible for implementation prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others.
Roadway Segment #1: Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive.	Phase 2	Pedestrian	Roadway segments on Los Osos Valley Road operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Install Class IV bikeways (protected bike lanes) along Los Osos Valley Road to provide a physical buffer between the sidewalk and vehicular traffic lanes. Improvement extents: NB (between Laguna Lane and Diablo Drive); SB (between Oceanaire and Diablo Drive). Project is responsible for fair-share contribution towards improvements.
Roadway Segment #2: Los Osos Valley Road from Oceanaire Drive to Madonna Road	Phase 2	Pedestrian	Roadway segment operates at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Install Class IV bikeways (protected bike lanes) along Los Osos Valley Road to provide a physical buffer between the sidewalk and vehicular traffic lanes. Improvement extents: SB (between Madonna and Oceanaire). Project is responsible for fair-share contribution towards improvements.
Roadway Segments #3, #4, #5 and #6: Los Osos Valley Road from Madonna Road to S. Higuera Street	Phase 2	Pedestrian	Roadway segments operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Install sidewalk along the west side of Los Osos Valley Road along the Project frontage between Irish Hills Plaza and Calle Joaquin. Install Class IV bikeways (protected bike lanes) along Los Osos Valley Road to provide a physical buffer between the sidewalk and vehicular traffic lanes. Improvement extents: NB & SB (between Madonna and S. Higuera). Project is responsible for construction of sidewalks prior to Phase 2. Project is responsible for a fair-share contribution towards Class IV bikeway improvements for Segments #5-6. Fair-shared contribution for Segments #3-4 through payment of City Traffic Impact Fees.
Roadway Segment #11: Madonna Road from Los Osos Valley Road to Dalidio Drive	Phase 2	Pedestrian	Roadway segment operates at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Install Class I Path parallel to Madonna Road between Oceanaire and the US 101 SB Ramps intersection. Project is responsible for a fair-share contribution towards improvements through payment of City Traffic Impact Fees.

Location	Trigger	Mode	Impact	Mitigation Measure
Local Road A	Phase 4	Neighborhood Traffic Management	Geometric design of Local Road A lacks features conducive to maintaining vehicle speeds within the City's established General Plan maximum target of 25 mph for local residential streets.	If accepted by the City as a public street, the Project is responsible for incorporating traffic calming measures into the design of Local Street A prior to Phase 4.
Near Term Scenario 1 Plus Project Impacts and Mitigation Measures				
Intersection #1: Los Osos Valley Road & Foothill Boulevard	Phase 2	Auto (Queue)	Addition of project traffic will exacerbate the southbound left-turn queue in the a.m. peak hour that would exceed capacity.	Optimize signal timing to increase the allocation of green-time to the southbound left-turn (with no increase in total cycle length). *Requires County approval and coordination*
Intersection #6: Los Osos Valley Road & Madonna Road	Phase 2	Auto (Queue)	Addition of project traffic will exacerbate the existing southbound left-turn queue that would exceed capacity during the a.m. peak hour	Restripe the southbound left-turn lanes to increase turn pocket storage to 365 feet and optimize signal timings to improve operations and reduce queuing at the southbound left-turn lane.
Intersection #10: Los Osos Valley Road & US 101 SB Ramps	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the existing southbound right queue and westbound right queue in the p.m. peak hour.	Existing Plus Project Mitigation
Intersection #15: S Higuera Street & Tank Farm Road	Phase 2	Bicycle	Project traffic would exacerbate existing unacceptable intersection LOS for bicycles approaching the intersection westbound on Tank Farm Road.	Existing Plus Project Mitigation. Extend northbound right-turn pocket storage to 230 feet. Project is responsible for implementation of bicycle improvements prior to Phase 2. Project is responsible for turn lane improvements prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others. ***This impact under Near Term Scenario 1 plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***
	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the northbound right turn queue during both a.m. and p.m. peak hour and southbound left queue in the a.m. peak hour.	

Location	Trigger	Mode	Impact	Mitigation Measure
Intersection #16: S Higuera Street & Prado Road	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the eastbound left queue in the a.m. and p.m. peak hours	Restripe intersection to accommodate a second southbound left-turn lane and second eastbound through lane. Requires striping modifications and potential street parking removal on east leg of intersection. Project is responsible for implementation prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others.
Intersection #19: Madonna Road & Dalidio Drive	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the eastbound right queue during both the a.m. and p.m. peak hour	Modify traffic signal to provide eastbound right-turn overlap phase concurrent with northbound left-turn phase. Project is responsible for implementation prior to Phase 4, or fair-share contribution if improvements are constructed sooner by others.
Roadway Segment #1: Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive.	Phase 2	Pedestrian	Roadway segments on Los Osos Valley Road operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation
Roadway Segment #2: Los Osos Valley Road from Oceanaire Drive to Madonna Road	Phase 2	Pedestrian	Roadway segment operates at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation
Roadway Segments #3, #4, #5 and #6: Los Osos Valley Road from Madonna Road to S. Higuera Street	Phase 2	Pedestrian	Roadway segments operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation

Location	Trigger	Mode	Impact	Mitigation Measure
Roadway Segment #5: Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	Phase 4	Auto	With addition of traffic from the proposed project, Automobile LOS would exceed City's standard in southbound direction during p.m. peak hour	Optimize signal timings at three adjacent intersections that operate on coordinated cycles: Los Osos Valley Road & US 101 NB Ramps; Los Osos Valley Road & Calle Joaquin; and Los Osos Valley Road & US 101 SB Ramps. Project is responsible for implementation prior to Phase 4, or fair-share contribution if improvements are constructed sooner by others. *Requires Caltrans Coordination.*
Near Term Scenario 2 Plus Project Impacts and Mitigation Measures				
Intersection #1: Los Osos Valley Road & Foothill Boulevard	Phase 2	Auto (Queue)	Addition of project traffic will exacerbate the southbound left-turn queue in the a.m. peak hour that would exceed capacity.	Optimize signal timing to increase the allocation of green-time to the southbound left-turn (with no increase in total cycle length). *Requires County approval and coordination*
Intersection #6: Los Osos Valley Road & Madonna Road	Phase 2 Phase 2	Pedestrian Bicycle	Addition of project traffic will exacerbate unacceptable pedestrian LOS crossing Los Osos Valley Road during the p.m. peak hour Addition of project traffic will exacerbate unacceptable pedestrian LOS crossing Los Osos Valley Road during the p.m. peak hour	Implement Pedestrian Lead Intervals (LPI) for each pedestrian crossing phase at this intersection. Construct Prado Interchange and US 101 NB Ramps. Project is responsible for improvements prior to Phase 2, or fair-share contribution if improvements are constructed sooner by others. ***This impact under Near-term Scenario 2 plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***
Intersection #10: Los Osos Valley Road & US 101 SB Ramps	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the existing southbound right queue in the p.m. peak hour.	Construct Prado Interchange and US 101 NB Ramps. Mitigate to maximum extent feasible by extending the westbound left turn pocket to 320 feet, extending the southbound right turn pocket to 140 feet, and optimizing traffic signal coordination between LOVR/Calle Joaquin and LOVR/US 101 SB Ramps. Project is responsible for implementation prior to Phase 4 or fair-share contribution if constructed sooner by others. *Requires Caltrans approval and coordination*.[1] ***This impact under Near-term Scenario 2 plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***

Location	Trigger	Mode	Impact	Mitigation Measure
Intersection #15: S Higuera Street & Tank Farm Road	Phase 2 Phase 2 Phase 4	Pedestrian Bicycle Auto (Queue)	Addition of project traffic will exacerbate unacceptable pedestrian LOS during the p.m. peak hour that reflects the crossing across S. Higuera Street. Project traffic would exacerbate existing unacceptable intersection LOS for bicycles approaching the intersection westbound on Tank Farm Road. Addition of project traffic will exacerbate the northbound right turn queue during both a.m. and p.m. peak hour and southbound left queue in the a.m. peak hour.	Implement Pedestrian Lead Intervals (LPI) for each pedestrian crossing phase at this intersection. Construct Prado Road Interchange and NB 101 Ramps. Mitigate to the maximum extent feasible with installation of Existing Plus Project Mitigation and extension of northbound right-turn pocket storage to 230 feet. Project is responsible for implementation of pedestrian and bicycle improvements prior to Phase 2. Project is responsible for Prado Road Interchange and turn lane improvements prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others. ***This impact under Near-term Scenario 2 plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***
Intersection #16: S Higuera Street & Prado Road	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the southbound left queue in the a.m. peak hour	Restripe intersection to accommodate a second southbound left-turn lane and second eastbound through lane. Requires striping modifications and potential street parking removal on east leg of intersection. Project is responsible for implementation prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others.
Intersection #18: Madonna Road & Oceanaire Drive	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the westbound right queue a.m. peak hour	Construct Prado Road Interchange and NB 101 Ramps. Project is responsible for implementation of improvements prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others. ***This impact under Near-term plus Project Scenario 2 conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***

Location	Trigger	Mode	Impact	Mitigation Measure
Intersection # 20: Madonna Road & US 101 SB Ramps	Phase 2	Auto	With addition of traffic from the proposed project, Automobile LOS would exceed Caltrans standards in the p.m. peak hour	Construct Prado Road Interchange & NB 101 Ramps. Mitigate to the maximum extent feasible with optimization of signal timings and coordination between US 101 NB and SB ramp intersections. Project is responsible for implementation of improvements prior to Phase 2, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others. *Requires Caltrans coordination and approval.* ***This impact under Near-term Scenario 2 plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***
Intersection # 21: Madonna Road & US 101 NB Ramps	Phase 2	Auto	With addition of traffic from the proposed project, Automobile LOS would exceed Caltrans standards in the p.m. peak hour	Construct Prado Road Interchange & NB 101 Ramps. Mitigate to the maximum extent feasible with optimization of signal timings and coordination between US 101 NB and SB ramp intersections. Project is responsible for implementation of improvements prior to Phase 2, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others. *Requires Caltrans coordination and approval.* ***This impact under Near-term Scenario 2 plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***
Roadway Segment #1: Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive.	Phase 2	Pedestrian	Roadway segments on Los Osos Valley Road operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation
Roadway Segment #2: Los Osos Valley Road from Oceanaire Drive to Madonna Road	Phase 2	Pedestrian	Roadway segment operates at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation

Location	Trigger	Mode	Impact	Mitigation Measure
Roadway Segments #3, #4, #5 and #6: Los Osos Valley Road from Madonna Road to S. Higuera Street	Phase 2	Pedestrian	Roadway segments operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation
Roadway Segment #5: Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	Phase 4	Auto	With addition of traffic from the proposed project, Automobile LOS would exceed City's standard in southbound direction during p.m. peak hour	Optimize signal timings at three adjacent intersections that operate on coordinated cycles: Los Osos Valley Road & US 101 NB Ramps; Los Osos Valley Road & Calle Joaquin; and Los Osos Valley Road & US 101 SB Ramps. Project is responsible for implementation prior to Phase 4, or fair-share contribution if improvements are constructed sooner by others. *Requires Caltrans Coordination.*
Cumulative Plus Project Impacts and Mitigation Measures				
Intersection #1: Los Osos Valley Road & Foothill Boulevard	Post Phase 4	Auto	The proposed project degrades intersection LOS for automobiles that fails without the proposed Project and would increase v/c ratio by 0.01, during the p.m. peak hour	Restripe the northbound approach to provide one left-turn, two through and one right-turn lane. Additional minor traffic signal, striping and signage modifications required. Project is responsible for a fair-share contribution towards improvements. *Requires County approval and coordination.*
Intersection #5: Los Osos Valley Road & Royal Way	Post Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the northbound left-turn lane queue that would exceed capacity in the p.m. peak hour	Restripe northbound left turn pocket to extend storage length to 150 feet and optimize corridor signal timings along Los Osos Valley Road. Project is responsible for a fair-share contribution towards improvements.
Intersection #6: Los Osos Valley Road & Madonna Road	Post Phase 4	Pedestrian	Addition of project traffic will exacerbate unacceptable pedestrian LOS crossing Los Osos Valley Road during the p.m. peak hour	Implement Pedestrian Lead Intervals (LPI) for each pedestrian crossing phase at this intersection.

Location	Trigger	Mode	Impact	Mitigation Measure
Intersection #9: Los Osos Valley Road & Calle Joaquin	Post Phase 4	Pedestrian	Addition of project traffic will exacerbate unacceptable pedestrian LOS during the p.m. peak hour that reflects the lengthy crossing distance across Los Osos Valley Road and 45 mph travel speeds by vehicles traveling on Los Osos Valley Road.	Implement Pedestrian Lead Intervals (LPI) for each pedestrian crossing phase at this intersection.
Intersection #10: Los Osos Valley Road & US 101 SB Ramps	Post Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the existing southbound right queue in the p.m. peak hour.	Optimize signal coordination between LOVR/Calle Joaquin and LOVR/US 101 SB Ramps intersections to manage SB right-turn queuing. *Requires Caltrans approval and coordination*.
Intersection #15: S Higuera Street & Tank Farm Road	Post Phase 4	Pedestrian Auto (Queue)	Addition of project traffic will exacerbate unacceptable pedestrian LOS during the p.m. peak hour that reflects the crossing across S. Higuera Street. Addition of project traffic will exacerbate the southbound left queue that would exceed capacity in the a.m. peak hour.	Implement Pedestrian Lead Intervals (LPI) for each pedestrian crossing phase at this intersection. Extend the southbound left turn pocket to 300 feet. Project is responsible for a fair-share contribution towards improvements.
Intersection #18: Madonna Road & Oceanaire Drive	Post Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the westbound left queue in a.m. peak hour and westbound right queue in the p.m. peak hour	Extend westbound right-turn pocket storage to 200 feet and optimize signal timings. May require replacement of existing culvert on Madonna west of Oceanaire. Project is responsible for a fair-share contribution towards improvements.
Intersection #19: Madonna Road & Dalidio Drive	Post Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the eastbound right queue during both the a.m. and p.m. peak hour	Modify traffic signal to provide eastbound right-turn overlap phase concurrent with northbound left-turn phase. Project is responsible for a fair-share contribution towards improvements.

Location	Trigger	Mode	Impact	Mitigation Measure
Roadway Segment #1: Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive.	Post Phase 4	Pedestrian	Roadway segments on Los Osos Valley Road operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation
Roadway Segment #2: Los Osos Valley Road from Oceanaire Drive to Madonna Road	Post Phase 4	Pedestrian	Roadway segment operates at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation
Roadway Segments #3, #4, #5 and #6: Los Osos Valley Road from Madonna Road to S. Higuera Street	Post Phase 4	Pedestrian	Roadway segments operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation

Notes:
[1] Queue mitigation lengths based on 95th percentile queue lengths under Cumulative plus Project conditions.

Table 1-2 – Other Transportation Improvements Summary Table

Location	Trigger	Mode	Topic	Improvement Measure
Los Osos Valley Road (Irish Hills Plaza to Calle Joaquin)	Phase 2	Safety/Access Management	Segment of Los Osos Valley Road between Froom Ranch Way and Calle Joaquin experiences high collision rates and design is not consistent with City access management or design standards for a Parkway Arterial Street. Project traffic exacerbates these deficiencies.	Construct landscaped median along Los Osos Valley Road from terminus of existing median at northern Project frontage to Calle Joaquin. Project is responsible for construction of median improvements prior to Phase 2, or fair-share contribution if constructed by others sooner.
Highway 101 Mainline Operations	Phase 2	Auto	Project traffic exacerbates US 101 mainline operations, which operate at unacceptable LOS.	Project is responsible for fair-share contribution towards planned US 101 mainline operational improvements: • Install ramp metering at US 101 SB on-ramp at Los Osos Valley Road • Install ramp metering at US 101 SB on-ramp at S. Higuera • Install US 101 NB auxiliary lane planned as part of Prado Interchange Phase 1 • Install US 101 SB improvements planned with Prado Interchange SB ramps, which include proposed SB collector-distributor system. Project's fair-share contribution towards Los Osos Valley Road SB Ramp metering improvements and northbound/southbound mainline improvements satisfied through payment of City Traffic Impact Fees.

2.0 PROJECT DESCRIPTION

The proposed project, also known as the proposed Froom Ranch Specific Plan (FRSP), is a mixed-use development located on an approximately 110-acre site on the south side of Los Osos Valley Road (LOVR), west of U.S. Highway 101. The project would incorporate a mix of senior housing, multi-family residential units, commercial development, and a public park. The project site plan is presented on **Figure 2-1**.

In addition to the proposed FRSP, other entitlements have been requested to allow development of the Project, including General Plan amendments, annexation of the Specific Plan area into the City of San Luis Obispo, and a Vesting Tentative Tract Map (VTTM). Amendments to the General Plan would include those made to allow adoption of a Specific Plan, pre-zoning of the site, and development above 150-feet in elevation.

2.1 PROJECT LOCATION

The Specific Plan area is generally bounded by LOVR to the east, Calle Joaquin and Mountainbrook Church to the south, Irish Hills Plaza to the north, and the City-owned Irish Hills Natural Reserve to the west.

The 116.8-acre Project site is located southwest of the City at the base of the Irish Hills Natural Reserve.

Roads immediately adjacent to the Project site include LOVR and Calle Joaquin. LOVR is a four-lane roadway with a center median turning lane and provides Class II bicycle lanes in both directions. The northbound side of LOVR is striped for parallel parking and provides a 10-foot-wide sidewalk. The southbound side of LOVR along the Project site frontage does not provide parking or a sidewalk and is curbed adjacent to an open vegetated drainage ditch running the length of the Project site.

Calle Joaquin is a two-lane roadway that extends south of the Specific Plan area from LOVR to KSBY within the City limits. From LOVR and along the segment adjacent to the hotels, Calle Joaquin is bordered with sidewalks and planter strips on both sides. From the hotels to KSBY, Calle Joaquin is a two-lane road with unimproved shoulders along either side of the road. Calle Joaquin does not provide access to the Project site, but is the main road to Mountainbrook Church, KSBY, and Filipponi Ranch. U.S. 101 is located approximately 0.15 mile east of the Specific Plan area and provides regional access to the Project vicinity via LOVR.

Proposed Site Plan

Figure 1-5 Conceptual Site Plan

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2.2 PROPOSED LAND USES

The proposed project would include two main components:

- The Villaggio Life Plan Community (Villaggio) would provide up to 404 units of senior housing that would include independent and assisted living units, as well as health care facilities with 51 beds for memory care and skilled nursing.
- Madonna Froom Ranch would provide up to 174 multi-family housing units and up to 100,000 square feet (sf) of mixed commercial uses, including a potential 70,000-sf hotel and 30,000 sf of retail commercial uses.

The locations of Villaggio and Madonna Froom Ranch within the Specific Plan area are shown on **Figure 2-2**.

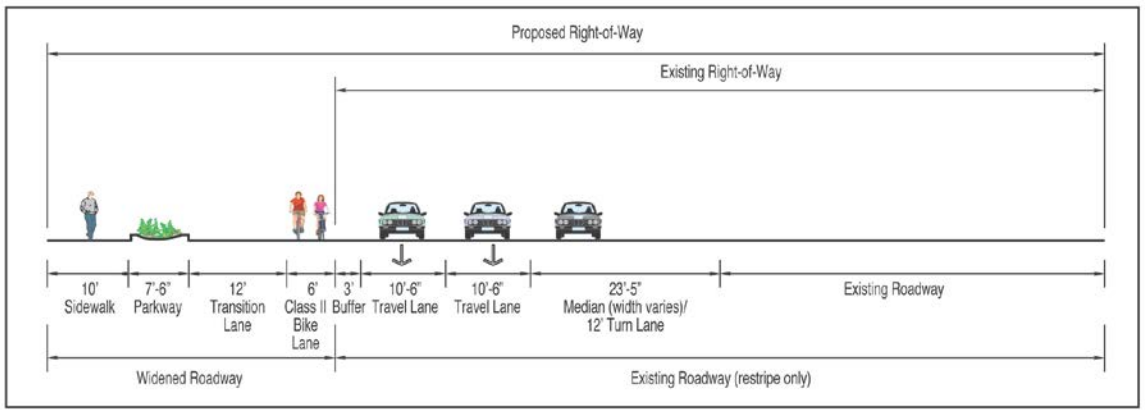
Figure 2-2 Villaggio and Madonna Froom Ranch subareas

The project would also include 2.9 acres for a new public Trailhead Park within Madonna Froom Ranch and dedication of 59.0 acres within the Specific Plan area to open space. The proposed project would also include realignment of Froom Creek within the Specific Plan area, a new signalized intersection at LOVR and Auto Park Way, and improvements to stormwater management facilities both within and adjacent to the Specific Plan area.

2.3 PROPOSED ACCESS

The project site would be accessed via LOVR including existing sidewalks and bicycle facilities adjacent to the Project site. Primary access would be via the LOVR/Auto Park Way intersection. The Project would include signalization of the LOVR/Auto Park Way intersection. Primary access to the Specific Plan area would be via a new two-lane road Commercial Collector "A", which would intersect with LOVR at Auto Park Way. The new intersection would be located approximately 1,000 feet south of the intersection of LOVR and Froom Ranch Way. The proposed LOVR/Auto Park Way intersection would be signalized and would provide pedestrian crossings at each leg.

Figure 2-3 Proposed Los Osos Valley Rd widening (northernmost 550 ft. of Project)



2.4 PROPOSED INTERNAL CIRCULATION

The proposed internal circulation system would include new roads, sidewalks, and bicycle facilities within Madonna Froom Ranch. The internal circulation system would include new collector and residential roads, bicycle facilities, transit improvements, and emergency access extending from Mountainbrook Church. In addition, private roadways and pedestrian paths are proposed in Villaggio. Major components of the proposed circulation system are summarized below:

1. Proposed internal roadway network consisting of public and private roads;
2. Proposed bicycle and pedestrian facilities within the Specific Plan area;
3. Parking facilities to accommodate residents, employees, and visitors within the Specific Plan area;
4. Widening of LOVR along a portion of the Project site's frontage;
5. A proposed signalized intersection at LOVR and Auto Park Way to serve as the primary entrance to the Specific Plan area; and
6. A new bus stop that would be integrated into the regional public transportation system.

As currently proposed, all roadways within Madonna Froom Ranch would be open to the public and accessible by motorists, bicyclists, and pedestrians from LOVR. The Project

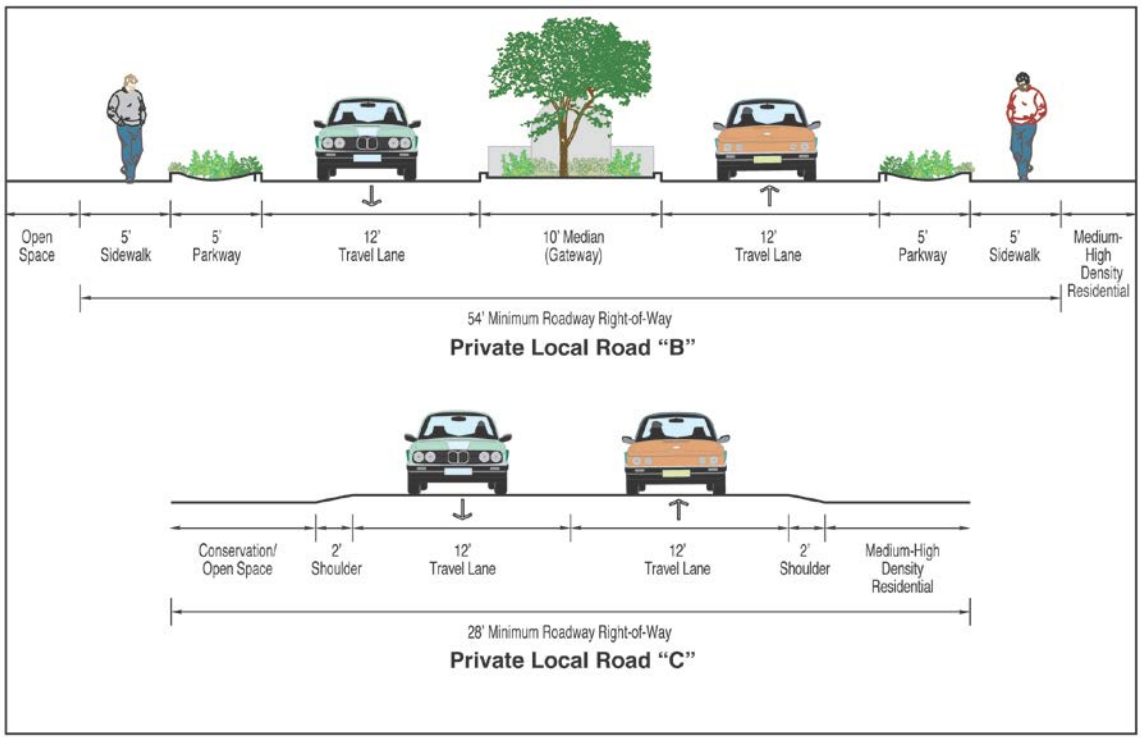
would include two public Commercial Collector roadways, "A" and "B" and one public Local Road "A".

Commercial Collector "A" would connect LOVR to residential and commercial areas within Madonna Froom Ranch. Commercial Collector "A" would be a 73-foot-wide roadway with one 12-foot-wide travel lane in each direction, a planted median divider, 6-foot-wide Class II bicycle lanes, 8-foot-wide parkways, and 6-foot-wide sidewalks.

Commercial Collector "B" would connect to the main entrance to Villaggio and terminate at the Project site's boundary to the north. Commercial Collector "B" would be 44 feet wide with one 12-foot-wide travel lane in each direction, 5-foot-wide parkways, and 5-foot-wide sidewalks. Only pedestrian and bicycle access would be allowed to the adjacent Irish Hills Plaza using bollards or similar devices to restrict vehicular travel.

Local Roads "B" and "C" would be private roads within Villaggio (Figure 2-12). Local Road "B" would serve as the primary ingress/egress to Villaggio from Commercial Collector "B" past the Villaggio entrance gate to a central location in the lower area of Villaggio near the Commons. Local Road "B" would include one 12-foot-wide travel lane in each direction, a 10-foot-wide landscaped median, 5-foot-wide landscaped parkways, and 5-foot-wide sidewalks. Local Road "C" would provide private access throughout Villaggio and would connect the upper terrace and lower area. Local Road "C" would include two 12-foot-wide vehicle travel lanes with 2-foot-wide shoulders and no sidewalks.

Figure 2-4 Proposed Private Road Cross Sections



Emergency Vehicle Access

Emergency access roads would be 20 feet wide with 2-foot-wide shoulders, constructed of an all-weather surface, and built to approval of the City Fire Department. Three emergency access points are proposed within the Specific Plan area as follows:

Upper Terrace Emergency Access. Emergency vehicle access to the Specific Plan area would be provided via a gated emergency access road extending from the Specific Plan area boundary to the Mountainbrook Church on the upper terrace. Emergency access is proposed as a paved at-grade surface road with a private gated entry that would connect to an existing decomposed granite road and parking area on the Mountainbrook Church property. The gate would be equipped with fire access security for emergency vehicle access, and a pedestrian gate with a key pad for Villaggio residents. This emergency access road would also provide pedestrian and bicycle access for Villaggio residents to Mountainbrook Church. Limited golf cart parking would be allowed within the upper terrace near the gated entry, though golf carts would not be permitted to pass through to Mountainbrook Church.

Trailhead Park Emergency Access. A paved emergency access road would connect Commercial Collector "B" to the cul-de-sac of the proposed public park's parking lot and driveway, providing an alternate accessway to the park and the upper portions of Madonna Froom Ranch. Removable bollards at the park's cul-de-sac and the connection to Commercial Collector "B" would be installed to restrict vehicular access into the park via the emergency access road. The emergency access road would also provide a pedestrian connection, paved with colored and scored concrete, or drivable pavers (see also, Figure 2-7).

Irish Hills Plaza Emergency Access. The northern terminus of Commercial Collector "B" at the Project site boundary would provide for passage of emergency vehicles and personnel via the parking lot of Irish Hills Plaza with removal of proposed bollards.

Bicycle Network

The Project includes a proposed bicycle network within the Specific Plan area that would connect with existing bicycle lanes along LOVR. Proposed 6-foot-wide Class II bicycle lanes with 2-foot-wide striped buffers would be included along Commercial Collector "A". Class III bicycle routes are also proposed along Commercial Collector "B" and Local Road "A" to connect Trailhead Park and residential areas within Madonna Froom Ranch (Figure 2-11). These roadways would be designed with shared lane markings ("sharrows") with on-street painted bicycle symbols to demarcate a preferred route for shared vehicular and bicycle travel. Bicycle parking would be provided to commercial, recreational, and residential uses within Madonna Froom Ranch, consistent with City zoning requirements.

Sidewalks

Sidewalks are proposed along an approximate 550-foot-long portion of LOVR from the new transit stop location north to Irish Hills Plaza, along Commercial Collectors "A" and "B" and Local Roads "A" and "B". Sidewalks would range between 5 and 10 feet in width. Proposed sidewalks would facilitate pedestrian circulation between proposed

residential neighborhoods, commercial, and recreational areas. The sidewalks would include lighting, paving, bulb-outs at intersections, and landscaping. Local Roads "C" within Villaggio would not include sidewalks; however, a network of private walking trails separated from vehicle roadways would be provided for Villaggio residents (see Figure 2-12).

Pedestrian Trail System

The Project includes a public pedestrian trail that would generally follow the proposed realigned Froom Creek corridor through the Specific Plan area. The Froom Creek Trail would extend approximately 2,500 linear feet from the existing Froom Creek Connector Trail within the adjacent Irish Hills Natural Reserve and would terminate at a public viewing/rest area adjacent to onsite wetlands and the reconfigured agriculture and open space easement. The terminus of the trail would connect to a private Villaggio gated pedestrian access point (Figure 2-9). The proposed Froom Creek Trail would be accessible from Madonna Froom Ranch, Villaggio, and the existing Irish Hills Natural Reserve trails system. Froom Creek Trail would also be accessible via 6-foot-wide pedestrian trails that would extend through the Madonna Froom Ranch residential areas and Trailhead Park. The proposed public Froom Creek Trail would be a 6-foot-wide, decomposed granite (or other stabilized natural surface) pedestrian trail and would not provide lighting. Potential trail amenities would include benches, signage, trash cans, landscaping, and dog waste stations. Portions of the trail would be located within the 35-foot-wide riparian setback of realigned Froom Creek.

Transit Access

A single new bus stop is proposed in the southbound direction of LOVR, just south of the intersection of Commercial Collector "A" and LOVR at the Project's primary access. The Applicant would coordinate with the City Transit Division (SLO Transit) to integrate with existing SLO Transit routes 2A and 2B.

Project Phasing

The Project would be constructed in four phases between 2020 and 2024 to allow for Project completion and full occupancy in 2025. Phases would be timed and ordered to provide services within the Project site to support development and eventual occupation. These phases would overlap periodically. For example, Phase 1 would include grading of areas for Phase 2 and Phase 3 to borrow soil needed for fill on Phases 2 and 3.

Table 2-1. Project Construction Phases

Phase	Project Components
1	***Installation of Project Infrastructure and Stormwater Management System.*** • Rough grading for Madonna Froom Ranch and distribution of export material to Phase 2. • Widen LOVR and install frontage improvements along LOVR, including bicycle lanes, sidewalks, bus stop, and signalized intersection. • Install onsite public roads (Commercial Collectors "A" and "B" and associated bicycle lanes and sidewalks). • Install public utility connections along Commercial Collectors "A" and "B". • Construct bridge across Froom Creek from Commercial Collector "B". • Realign Froom Creek and reconstruct creek corridor. • Modify Irish Hills Plaza drainage. Install stormwater management system. • Installation of Froom Creek Trail. • Begin site clearing of lower area in preparation for Phase 3.
2	***Development of Villaggio Lower Area.*** • Grading of the lower area of Villaggio and import fill materials (158,000 cy import). • Install onsite private roads (Local Roads "B" and part of "C") within the lower area. • Install emergency access road and gate between Villaggio and Mountainbrook Church (upper terrace). • Extend utility lines throughout the lower area. • Construct water quality treatment areas within Phase 2. • Install fencing and pedestrian access gates around the lower area. • Construct 150 piazza apartments, 84 garden terraces, 30 villas, and 47 village suites in lower area of Villaggio. • Construct the Villaggio Health Administration Building. • Construct the "Commons" buildings within the community village of the lower area. • Construct the Wellness Center. • Begin site clearing of upper terrace in preparation for Phase 3.
3	***Development of Villaggio Upper Terrace.*** • Grading of the upper terrace of Villaggio and import fill materials (93,000 cy) • Install onsite public road (Local Road "A") and private roads (Local Roads "C"). • Extend utility lines throughout the upper terrace and along Local Road "A" (in Madonna Froom Ranch). • Construct remaining water quality treatment areas in Specific Plan area. • Install fencing and pedestrian access gates around the upper terrace. • Construct 24 garden terraces and 31 villas in the upper terrace of Villaggio. • Construct non-residential ancillary uses within the village center of the upper terrace. • Relocate and reconstruct the historic Froom Ranch buildings at the Trailhead Park. • Install Trailhead Park. • Construct Trailhead Park emergency access road.
4	***Development of Madonna Froom Ranch.*** • Extend utility lines throughout Madonna Froom Ranch. • Construct 174 multi-family units within Madonna Froom Ranch. • Construct commercial retail buildings, including hotel, within Madonna Froom Ranch.

3.0 TRANSPORTATION ANALYSIS

This section describes transportation facilities and operations and analyzes the potential environmental effects of the proposed Froom Ranch Specific Plan (FRSP) on transportation and traffic as defined by the California Environmental Quality Act (CEQA) and the City of San Luis Obispo's (City) regulations and policies.

3.1 ENVIRONMENTAL SETTING

This section describes the transportation network relevant to the Project area including:

- Descriptions of key roads and intersections including number of motor vehicle and bicycle lanes, provision of sidewalks, and intersection signals.
- List of study intersections and roadway segments, including existing operations, queuing, and LOS.
- Existing transit facilities, routes, headways, and stops serving the Project vicinity.
- Existing bicycle facilities, including bicycle paths, lanes, and routes, serving the Project vicinity.
- Existing pedestrian facilities, including sidewalks, key crossings and gaps in sidewalks.

3.1.1 Existing Roadway Network

Regional motor vehicle access to the Project site is provided via US Highway 101 (US 101) at an interchange with Los Osos Valley Road. Local access is provided via Los Osos Valley Road, South Higuera Street and Madonna Road.

Direct access to the Project site is provided from the intersection of Los Osos Valley Road and Auto Park Way. **Figure 3.1-1** shows the roadways in the vicinity of the project site. Roadways which provide access to the project site and vicinity are described below.

US 101 is a north-south, four lane mixed flow freeway through the City of San Luis Obispo. Outside of the City, US 101 provides access to the City of Paso Robles to the north and the five Cities area to the south. US 101 is functionally classified as an Urban Principal Arterial and is part of the National Truck Network. It is a primary route for all truck traffic leaving from and coming to the City.

Los Osos Valley Road is a north-south arterial street that extends from South Higuera Street in the City of San Luis Obispo to Pecho Valley Road in the City of Los Osos. This roadway provides motor vehicle access to US 101 approximately 0.5 mile west of South Higuera Street and is functionally classified in the City as an Arterial or a Parkway Arterial. Los Osos Valley Road provides four-to-six lanes with Class II bike lanes and sidewalks on both sides for the majority of the study area. Since 2014, improvements associated with the Los Osos Valley Road/US 101 Interchange Traffic Relief Project have been constructed. Completed improvements to the interchange include widening Los Osos Valley Road to four lanes from west of Calle Joaquin Road to approximately 500 feet west of South Higuera Street as well as constructing sidewalks and Class II bike lanes along both sides of Los Osos Valley Road.

Madonna Road is an east-west roadway that extends from Devaul Ranch Road west of Los Osos Valley Road to Higuera Street. Madonna Road is functionally classified as a Local roadway west of Los Osos Valley Road, and as an Arterial street east of Los Osos Valley Road. Throughout its span Madonna Road provides two, four or six travel lanes, and Class II bike lanes with sidewalks on one or both sides. This roadway also provides motor vehicle access to US 101 approximately one-half mile west of Higuera Street.

Froom Ranch Way is an east-west roadway that connects Los Osos Valley Road to the Prefumo Creek Shopping Center on the east side and the Irish Hills Plaza on the west side. Froom Ranch Way is four lanes west of Los Osos Valley Road and two lanes east of Los Osos Valley Road with sidewalks on both sides and Class II bicycle lanes on the east side. As part of the study conducted for San Luis Ranch Project, planned changes to Froom Ranch Way include extension of the roadway as a two-lane collector street with Class II bike lanes and a Class I multiuse path on the north side from Los Osos Valley Road east to Dalidio Drive.

South Higuera Street is a north-south arterial within the vicinity of the project site. Higuera Street connects to downtown San Luis Obispo to the north and US 101 to the south. South of Madonna Road, it provides a four-lane roadway with Class II bike lanes and continuous sidewalks.

Prado Road is an east-west two-lane corridor that extends eastward from the US 101 northbound ramps to South Higuera Street. Prado Road is functionally classified as a Highway/Regional Route. Prado Road is a two-lane roadway with sidewalks on both sides and on-street parking at various locations. Planned changes to Prado Road include extension west from US 101 to Dalidio Drive and east to Broad Street as a four-lane roadway with Class II bike lanes, Class I multiuse paths on one or both sides.

Tank Farm Road is an east-west Parkway Arterial which connects South Higuera Street to Broad Street to the east, and continues as Orcutt Road east of the Orcutt Area. In the vicinity of the project site, Tank Farm Road is a four-lane roadway with Class II bike lanes and sidewalks on both sides.

3.1.2 Existing Pedestrian Facilities

Pedestrian facilities include sidewalks, paths, crosswalks, and pedestrian signals at signalized intersections. In the vicinity of the project site:

- Sidewalks are discontinuous on portions of both sides of Los Osos Valley Road. There are no sidewalks along the Project frontage on Los Osos Valley Road.
- Continuous sidewalks are provided on Auto Park Way, Calle Joaquin and Froom Ranch Way.
- All of the signalized intersections along Los Osos Valley Road are equipped with marked crosswalks and pedestrian signals.

3.1.3 Existing Bicycle Facilities

Bicycle facilities include bicycle paths, lanes, and routes. Class I bicycle paths are paved pathways separated from roadways. Class II bicycle lanes are lanes for bicyclists adjacent to the outside vehicle travel lanes. These lanes have special lane markings, pavement

legends, and signage. Class III bicycle routes are generally located on low traffic volume streets that provide alternative routes for recreational, and in some cases, commuter and school children cyclists. These facilities are designed for bicycle use, but have no separated bicycle right-of-way or lane striping. Within the Project vicinity:

- Class 1 bicycle paths, lanes near the project site include the current southern terminus of the Bob Jones Trail that currently connects to the north side of Los Osos Valley Road at the intersection with the US 101 NB Ramps. The trail currently extends from Los Osos Valley Road to Prado Road, while future plans call for extending the trail from Downtown San Luis Obispo to Avila Beach. Recreational hiking/mountain biking trails are also located adjacent to the project within the Irish Hills Open Space.
- Class II bicycle lanes are provided in both directions on portions of Los Osos Valley Road and South Higuera Street within the study vicinity, as well as the westbound direction of Madonna Road between Los Osos Valley Road and Oceanaire. The South Higuera Street bicycle lanes are provided between Los Osos Valley Road and Madonna Road, except for a gap in the northbound direction near South Street. The Los Osos Valley Road bicycle lanes are provided from the western City limit to South Higuera Street.
- Within the study area, Class III bicycle routes are designated along portions of Oceanaire Drive, Atascadero Street, Elks Lane, Calle Joaquin and Dalidio Drive within Laguna Lake Park.

3.1.4 Existing Transit Facilities

Public transit service to the Project area is provided by the City of San Luis Obispo Transit Division (SLO Transit) via bus routes 2A and 2B, which provide service to and from the Downtown Transit Center located on Osos Street.

- Route 2A operates in a clockwise loop with 60-minute headways from 6:15 a.m. to 10:00 p.m. and stops near the Project site on the east side of Los Osos Valley Road, north of the Auto Park Way intersection. This stop is within five-minutes to eight-minute walk from the project entry at Los Osos Valley Road/Auto Parkway Intersection. Currently, no pedestrian crossing exists at the intersection of Los Osos Valley Road/Auto Parkway
- Route 2B operates in a counterclockwise loop with 60-minute headways from 6:45 a.m. to 6:35 p.m. and stops near the Project site on the west side of Los Osos Valley Road, south of the Froom Ranch Way intersection. This stop is within a two-minute to five-minute walk from the project entry at Los Osos Valley Road/Auto Park Way.

3.1.5 Collision Analysis

Collisions reported collisions along the selected study locations were obtained from the City for a period of three years from January 2014 to December 2016. Most recent statewide collision averages for 2015 were obtained from the California Department of Transportation (Caltrans). Quantitative review of collision history for the selected

roadway segments and the study intersections are summarized in **Table 3.1-1** and **Table 3.1-2**.

Los Osos Valley Road between Froom Ranch Way and Calle Joaquin

As shown in **Table 3.1-1**, during the study period, there were a total of 29 collisions reported for the study segment of Los Osos Valley Road between Froom Ranch way and Calle Joaquin and a total of 17 injuries were reported. During the study period no crashes involving pedestrians were reports and one collision involving a bicyclist was reported. Fatal plus Injury rate for this study segment is higher when compared to the statewide average rate for similar facilities. Further, this segment has been identified as a high-collision rate location compared to similar city arterial streets in the City's most recent Annual Traffic Safety Report (2017).

S Higuera Street between Los Osos Valley Road and Clover Ridge Lane

As shown in **Table 3.1-2**, during the study period, there were a total of ten collisions reported for the study segment of S Higuera Street between Los Osos Valley Road and Clover Ridge Lane and a total of six injuries were reported. During the study period no crashes involving pedestrians and bicyclists were reported. One fatal injury was reported at Higuera Street and Clover Ridge Lane due to improper turning. Fatal plus Injury rate for this study segment is higher when compared to the statewide average rate for similar facilities.

Table 3.1-1 Collision Analysis at Study Segments

#	Study Segment	Number of Collisions			Length (Miles)	ADT[1]	MVM[2]	Collision Rate (Collisions/million vehicle miles)					
								Actual			State Average[4]		
		Total	Fatal	Fatal+ Injury				Total	Fatal[5]	Fatal+Injury[6]	Total	Fatal	Fatal+Injury
1	Los Osos Valley Road between Froom Ranch to Calle Joaquin	29	0	17	0.48	30,988	16.29	1.78	0.00	**1.04**	1.41	0.008	0.425
2	South Higuera Street between Los Osos Valley Road and Clover Ridge Lane	10	1	6	1.58	15,849	27.42	0.36	**0.036**	0.22	0.79	0.011	0.406

Notes:
Source: Transportation Injury Mapping System (TIMS), 2018 data; Caltrans 2015 Collision Data on California State Highways (road miles, travel, collisions, collision rates)
[1]ADT - Average daily Traffic
[2]MVM = Million Vehicle Miles
[3]Accident Rate (Rse) = A*1,000,000/ADT*365*Length*Years
[4]2015 Collision data on California State Highways, Caltrans
[5]Fatal Rate = Total number of Fatalities (Victims)/MVM.
[6]Fatal+Injury Rate = Total number of Fatalities and Injuries (Victims)/MVM

Table 3.1-2 Collision Analysis at Study Intersections

#	Study Intersection	Number of Collisions			ADT[1]	Collision Rate (Collisions/million vehicle miles)					
						Actual			State Average[3]		
		Total	Fatal	Fatal+ Injury		Total[2]	Fatal[4]	Fatal+Injury[5]	Total	Fatal	Fatal+Injury
1	Los Osos Valley Road and Auto Parkway	4	0	3	22,515	0.16	0.00	0.12	1.41	0.008	0.425
2	Los Osos Valley Road and Foothill Boulevard	9	0	1	19,455	0.42	0.00	0.05	0.79	0.011	0.406

Notes:
Source: Transportation Injury Mapping System (TIMS), 2018 data; Caltrans 2015 Collision Data on California State Highways (road miles, travel, collisions, collision rates)
[1]ADT - Average daily Traffic
[2]Accident Rate (Rse) = A*1,000,000/ADT*365*Length*Years
[3]2015 Collision data on California State Highways, Caltrans
[4]Fatal Rate = Total number of Fatalities (Victims)*1,000,000/ADT*365*Years. [5]Fatal+Injury Rate = Total number of Fatalities and Injuries (Victims)*1,000,000/ADT*365*Years

3.1.6 Analysis Methodology

The study intersections and roadway segments were evaluated according to the methodology required by the City of San Luis Obispo's Transportation Impact Analysis (TIA) Guidelines.

The study area is bound by Los Osos Valley Road, Madonna Road and South Higuera Street. 24 study intersections, 13 roadway segments and six California Department of Transportation (Caltrans) facilities within the Project vicinity were evaluated for potential Project specific and cumulative impacts associated with increased traffic generated by the Project. Study intersections are illustrated in **Figure 3.1-1** and **Figure 3.1-2** presents the study roadway segments.

3.1.6.1 Study Intersections

Multimodal operations were evaluated at the following 24 study intersections:

1. Los Osos Valley Road & Foothill Boulevard*
2. Los Osos Valley Road & Prefumo Canyon Road
3. Los Osos Valley Road & Laguna Lane
4. Los Osos Valley Road & Oceanaire Drive
5. Los Osos Valley Road & Royal Way
6. Los Osos Valley Road & Madonna Road
7. Los Osos Valley Road & Froom Ranch Way
8. Los Osos Valley Road & Auto Park Way (Project Driveway)
9. Los Osos Valley Road & Calle Joaquin
10. Los Osos Valley Road & US 101 SB Ramps**
11. Los Osos Valley & US 101 NB**
12. Los Osos Valley Road & South Higuera Street
13. South Higuera Street & Vachell Lane
14. South Higuera Street & Suburban Road
15. South Higuera Street & Tank Farm Road
16. Prado Road & South Higuera Street
17. Prado Road – Elks Lane & US 101 NB Ramps**
18. Madonna Road & Oceanaire Drive
19. Madonna Road & Dalidio Drive
20. Madonna Road & US 101 SB Ramps**
21. Madonna Road & US 101 NB Ramps**
22. Dalidio Drive & Froom (future intersection)
23. Prado Road & US 101 SB Ramps (future intersection)**

24. Collector A & Collector B (on-site) (future intersection)

**Under County jurisdiction*

***Under Caltrans jurisdiction*

3.1.6.2 Roadway Study Segments

Multimodal operations were evaluated on the following 13 study segments:

1. Los Osos Valley Road (Prefumo Canyon Road to Oceanaire Drive)
2. Los Osos Valley Road (Oceanaire Drive to Madonna Road)
3. Los Osos Valley Road (Madonna Road to Froom Ranch Way)
4. Los Osos Valley Road (Froom Ranch Way to Calle Joaquin)
5. Los Osos Valley Road (US 101 SB Ramps to US 101 NB Ramps)
6. Los Osos Valley Road (US 101 NB Ramps to South Higuera Street)
7. South Higuera Street (City Limit south to US 101/Clover Ridge Lane)
8. South Higuera Street (Los Osos Valley Road to Tank Farm Road)
9. South Higuera Street (Tank Farm Road to Prado Road)
10. Tank Farm (South Higuera Street to Broad Street)*
11. Madonna Road (Los Osos Valley Road to Dalidio Drive)
12. Froom Ranch Road (Los Osos Valley Road to Dalidio) [future extension]
13. Commercial Collector A (Los Osos Valley Road to Commercial Collector B) [on-site, future roadway]

**Portion of segment under County jurisdiction*

3.1.6.3 US 101 Study Segments

Traffic operations were evaluated on the following six Caltrans facilities, consisting of three US 101 mainline segments and three US 101 on and off ramps:

1. US 101 Mainline (NB & SB) – from South Higuera Street to Los Osos Valley Road
2. US 101 Mainline (NB & SB) – from Los Osos Valley Street to Dalidio Drive/Prado Road
3. US 101 Mainline (NB & SB) – from Prado road to Madonna Road
4. US 101 On & Off Ramps (NB & SB) at Los Osos Valley Road
5. US 101 On & Off Ramps (NB) at Prado Road (SB future)
6. US 101 On & Off Ramps (NB & SB) at Madonna Road

3.1.6.4 Analysis Scenarios

The analysis scenarios are described below.

Existing Conditions

Existing conditions quantifies multimodal transportation conditions based on current land use and transportation conditions, utilizing current traffic count data, as provided by the City, County, and Caltrans. The analysis will include the quantification of current automobile, bicycle, pedestrian, and transit service levels.

Near Term Conditions

Near Term conditions quantifies conditions in a roughly 5-10-year forecast horizon, representing approximate conditions at the time the Project is anticipated to be fully built and occupied—for the purposes of this study, this is identified as Year 2025. Vehicular, pedestrian, bicycle, and transit trip forecasts are developed utilizing the City's travel demand model. This includes approved/pending land development projects, such as build out of the San Luis Ranch and Avila Ranch Specific Plan Areas, transportation infrastructure improvement projects, as well as pro-rated regional growth increments consistent with the City's model forecasts. For the purposes of this study, two potential scenarios are considered under Near-Term Conditions—one with and one without completion of the US 101/Prado Interchange Project:

- Scenario 1: Near Term with partial US 101/Prado Road Interchange (Overcrossing and NB ramps only)
- Scenario 2: Near Term without US 101/Prado Road Interchange

The City plans to construct a new interchange at US 101/Prado Road within a 5-10 year planning horizon, with new northbound ramps and a northbound auxiliary lane at the onset, with plans for addition of southbound ramps and a potential southbound collector-distributor system in the long-term. A Project Study Report (PSR) for the interchange project has been completed and the project is currently progressing through environmental review and design, with plans to complete construction by 2023. Two Near Term analysis scenarios are considered for the purposes of this study in order to disclose the full range of potential project-related transportation impacts that may occur if the interchange project is delayed for some unforeseen reason.

Cumulative Conditions

Cumulative Conditions quantifies conditions representing buildout of the City's adopted General Plan land uses and transportation infrastructure improvements. The forecast horizon is roughly Year 2035 and will include regional growth representing buildout of surrounding incorporated jurisdictions and unincorporated communities in the County. As with Near Term conditions, vehicular, pedestrian, bicycle, and transit trip forecasts are developed utilizing the City's travel demand model. Implementation of the Prado Interchange with NB and SB Ramps is assumed for baseline Cumulative Conditions analysis.

Project Conditions (4 scenarios)

Existing Plus Project, Near Term plus Project (Scenario 1 & 2), and Cumulative Plus Project conditions build on the baseline Existing, Near Term, and Cumulative conditions

analyses, respectively, by adding anticipated Project-generated external trips, including automobile, bicycle, pedestrian, and transit trips over base counts and forecasts. Project-related transportation impacts were identified in each of these scenarios.

It should be noted that the project applicant has submitted two site plans for the FRSP Area. The preferred plan is discussed herein as "the Project" includes development above the 150-foot elevation limit, which is currently restricted per the City's General Plan. An alternate development plan, referred to herein as "the Alternate Project" includes the same land use types and quantities as the preferred Project, albeit with a modified arrangement that locates all development below the 150-foot elevation limit. Because the land use types and quantities, and connectivity to the surrounding transportation system is essentially consistent between the two proposals, the project trip generation estimates, traffic analyses findings, and mitigation recommendations documented in this study apply to either project proposal. A qualitative assessment of on-site circulation is provided for each specific site proposal in later sections of this study.

3.1.6.5 Multimodal Level of Service Methodology

The operation of intersections and roadway segments was evaluated based on methodologies established in the Transportation Research Board's 2016 Highway Capacity Manual 6th Edition (HCM 6th) Multimodal Level of Service (MMLOS) criteria. MMLOS is a qualitative measure of traffic operating conditions ranging from LOS A to LOS F, LOS A being the highest functioning and LOS F being the lowest functioning. In addition to MMLOS analysis, this analysis also addresses queue capacity as a measure of intersection performance. For intersections where the overall average intersection LOS is within acceptable thresholds, the capacities of turn pockets may still be exceeded, causing turning traffic to spill into through-lanes, which can obstruct flow and increase the potential for collisions. Queue capacity is analyzed by comparing the projected queue lengths to the available capacity of intersection turn pockets to accommodate the projected queues. The City's General Plan Circulation Element identifies LOS objectives and minimum standards for the various travel modes, as well as modal priorities for those levels of service. The Caltrans policy on LOS for State highways establishes LOS D as the standard for acceptable service.

City of San Luis Obispo MMLOS Standards

The City's General Plan Circulation Element includes LOS policies for all transportation modes. The City's stated goal is to maintain the LOS objective. However, if trips generated by a project causes the LOS to exceed the minimum LOS standard, a project is considered to cause an impact. **Table 3.1-3** presents the City's LOS objectives and standards, by mode.

Table 3.1-3 LOS Objective and Minimum Standard by Mode

Travel Mode	LOS Objective	Minimum LOS Standard	MMTIS Impact Threshold
Automobile	C	E (Downtown), D (Citywide)	D
Bicycle	B	D	D
Pedestrian	B	C	C
Transit	C	Baseline LOS or D	Baseline LOS or D

County and Caltrans LOS Standards

Besides the City's LOS objectives and standards, the County of San Luis Obispo (County) and Caltrans have also established LOS standards to determine project impacts. The County's policy calls for LOS D or better service on roadways in urban areas and LOS C on rural roads. Caltrans's policy endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities. Consistent with County and Caltrans policies, LOS D will be considered the standard acceptable threshold for County facilities, while LOS C is considered the minimum automobile threshold for Caltrans facilities. Bicycle, pedestrian, and transit LOS will not be included at County or Caltrans Facilities.

Table 3.1-4 summarizes HCM 6th Edition Segment Automobile LOS Standards.

Table 3.1-4 –Automobile Segment LOS Methodology

LOS	Travel Speed Threshold by Base Free-Flow Speed (mi/h)							Volume-to-Capacity Ratio
	55	50	45	40	35	30	25	≤1.0
A	>44	>40	>36	>32	>28	>24	>20	
B	>37	>34	>30	>27	>23	>20	>17	
C	>28	>25	>23	>20	>18	>15	>13	
D	>22	>20	>18	>16	>14	>12	>10	
E	>17	>15	>14	>12	>11	>9	>8	
F	≤17	≤15	≤14	≤12	≤11	≤9	≤8	
F	Any							>1.0

Source: HCM 6th Edition (2016)
Notes:
[a] The critical volume-to-capacity ratio is based on consideration of the through movement volume-to-capacity ratio at each boundary intersection in the subject direction of travel. The critical volume-to-capacity ratio is the largest ratio of those considered.

Table 3.1-5 and **Table 3.1-6** summarizes HCM 6th Pedestrian and Bike/Transit LOS Standards.

Table 3.1-5 – Pedestrian Segment LOS Methodology

Pedestrian LOS Score	LOS by Average Pedestrian Space (ft²/p)					
	>60	>40-60	>24-40	>15-24	>8.0-15[a]	≤8.0[a]
≤2.00	A	B	C	D	E	F
>2.00-2.75	A	B	C	D	E	F
>2.75-3.50	A	B	C	D	E	F
>3.50-4.25	A	B	C	D	E	F
>4.25-5.00	A	B	C	D	E	F
>5.00	A	B	C	D	E	F

Source: HCM 6th Edition (2016)
Notes:
[a]In Cross-flow situations, the LOS E/F threshold is 13ft2/p

Table 3.1-6 – Bicycle and Transit Segment LOS Methodology

LOS	LOS Score
A	≤2.00
B	>2.00-2.75
C	>2.75-3.50
D	>3.50-4.25
E	>4.25-5.00
F	>5.00

Source: HCM 6th Edition (2016)

Caltrans Facilities

Based on standard industry practice, the project is considered to trigger a significant impact to Caltrans facilities if the Project would:

- Result in a facility that will operate at an acceptable LOS in the base (pre-project or no project) condition to deteriorate to an unacceptable LOS in the "Plus Project" condition; or,
- *Freeway, Merge and Diverge Segments*: Project traffic increases the density in the by 5% or more at a facility that will operate at an unacceptable LOS in the base (pre-project or no project) condition.
- *Intersections*: Project traffic further degrades already exceeded LOS standards and the V/C ratio is increased by 0.01 or more.

Table 3.1-7 summarizes HCM 6th Edition Freeway Segments LOS criteria.

Table 3.1-7 –Freeway Segments LOS Methodology

Segment Type	Freeway Facility Density (pc/mi/h)
A	≤11
B	>11-18
C	>18-26
D	>26-35
E	>35-45
F	>45 or any component segment $v_d/c>1.00$

Source: HCM 6th Edition (2016)

Modal Priorities by Context

The City's Circulation Element has established priorities for various modes by context areas such that construction, expansion, or alteration of one mode should not degrade the LOS of a higher priority mode. If a project improves a lower priority mode's operation at the expense of a higher priority mode's operations, an impact is created. If a mitigation measure results in the degradation of higher priority mode, it would be considered a residual impact as well. The City's established Modal LOS Priorities by context area are presented in **Table 3.1-8**.

Table 3.1-8: City LOS Modal Priority Ranking by Area

Complete Street Area	Minimum LOS Standard	
Downtown & Upper Monterey Street	1. Pedestrians	3. Transit
	2. Bicycles	4. Vehicles
Residential Corridors & Neighborhoods	1. Pedestrians	3. Vehicles
	2. Bicycles	4. Transit
Commercial Corridors & Areas	1. Vehicles	3. Transit
	2. Bicycles	4. Pedestrians
Regional Arterial & Highway Corridors	1. Vehicles	3. Bicycles
	2. Transit	4. Pedestrians

Study Intersections

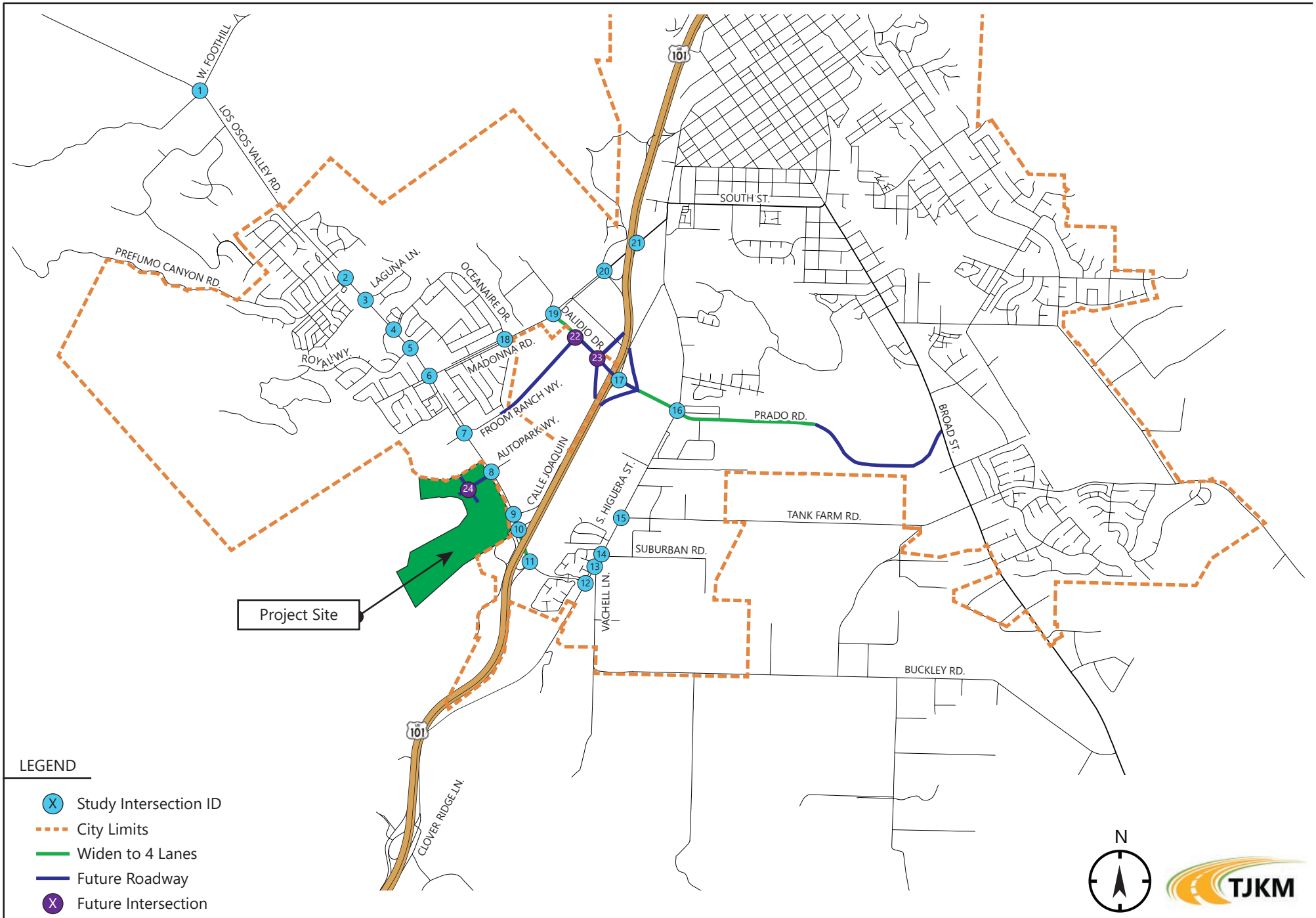


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Figure 3.1-1

Study Roadway Segments

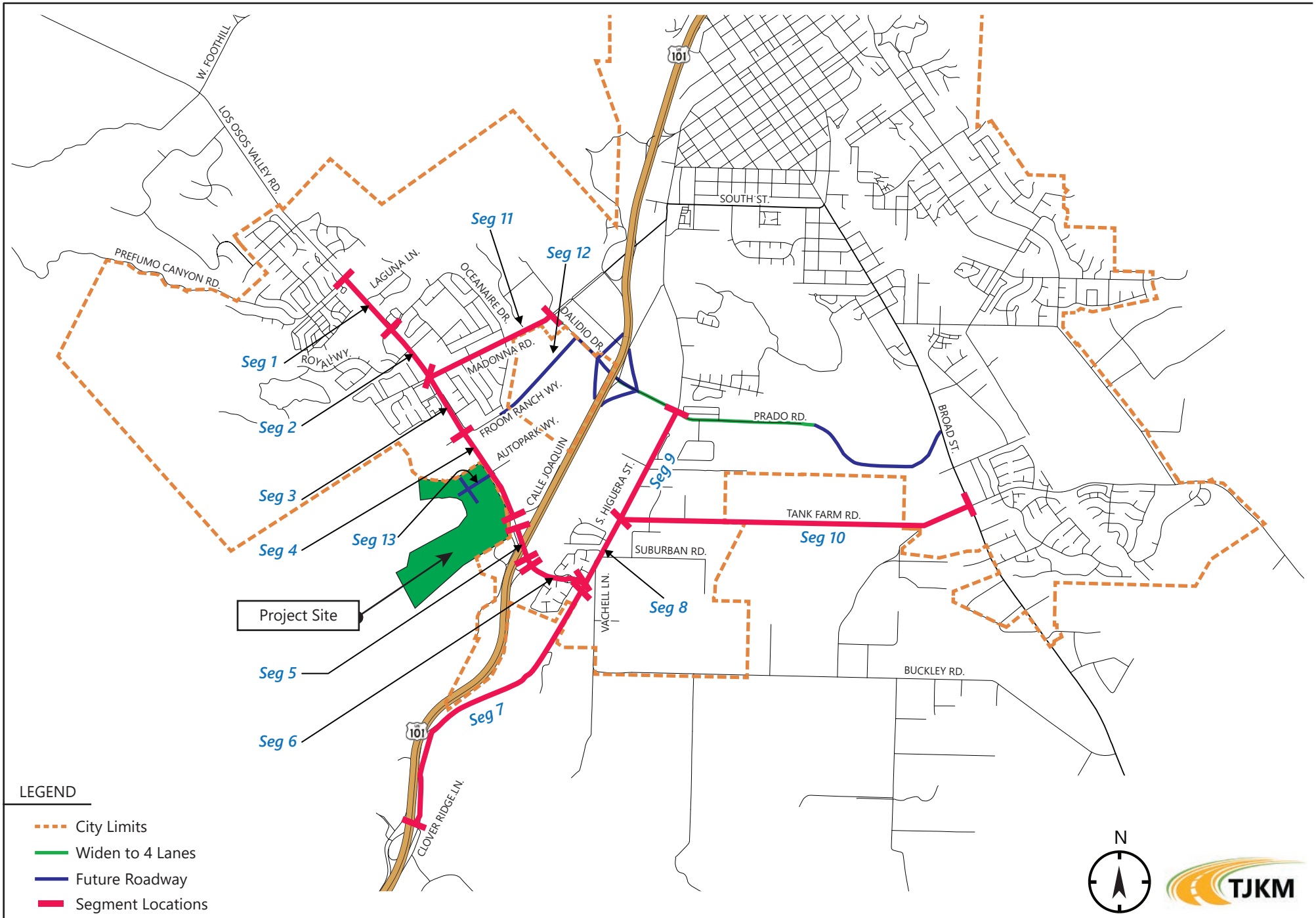

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Figure 3.1-2

3.1.7 Existing Conditions MMLOS Analysis

3.1.7.1 Existing Traffic Volumes & Lane Geometries

In order to determine existing operational characteristics for study intersections and roadway segments, intersection turning movement volumes for a.m. and p.m. peak period and roadway segment volumes from February 2016 and March 2016 were obtained from the City of San Luis Obispo. For the intersection of Foothill Boulevard and Los Osos Valley Road, turning movement volumes collected in September 2014 were obtained from the County of San Luis Obispo. Volumes at this intersection were adjusted to reflect growth through 2016. For freeway mainline and ramp traffic analysis, a.m. and p.m. peak period traffic volumes were obtained from 2017 PeMS data. Existing peak hour vehicular counts are included in **Appendix A**.

Detailed traffic flow analyses focus on operating conditions of critical intersections and segments during peak travel periods, which are typically the weekday a.m. and p.m. peak hours. The a.m. peak hour is defined as the highest one hour of traffic flow counted between 7:00 a.m. and 9:00 a.m. on a typical weekday, the p.m. peak hour is defined as the highest one hour of traffic flow counted between 4:00 p.m. and 6:00 p.m. on a typical weekday.

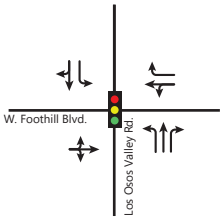
Figure 3.1-3 shows the existing lane geometries and traffic controls at the study intersections based on review of aerial photography and field observations conducted by TJKM in August 2018. Figure 3.1-4 shows the existing peak hour traffic volumes at the study intersections. Figure 3.1-5 shows existing pedestrian and bicycle counts at the study intersections and Figure 3.1-6 shows the average daily traffic (ADT) volumes along the roadway segments within the Project vicinity.

3.1.7.2 Existing MMLOS

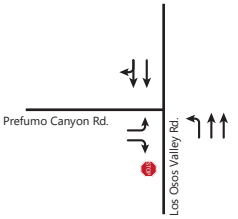
MMLOS was calculated for the study intersections, roadway segments, and Caltrans facilities based on HCM 6th methodology. **Table 3.1-9** through **Table 3.1-12** provides a summary of multimodal a.m. and p.m. peak hour intersection LOS and queuing under existing conditions. Existing Synchro models and traffic signal timing data were provided by the City. Synchro models were validated based on the field observations conducted in August 2018. Detailed Synchro LOS worksheets are included in **Appendix A.**

Existing Conditions Lane Geometries and Traffic Controls

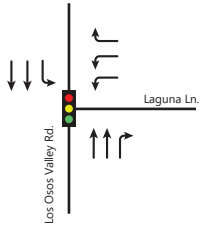
Intersection #1
W. Foothill Blvd. / Los Osos Valley Rd.



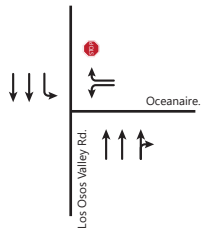
Intersection #2
Los Osos Valley Rd./Prefumo Canyon Rd.



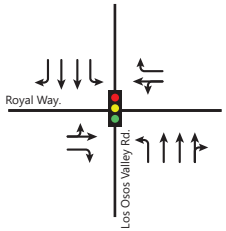
Intersection #3
Los Osos Valley Rd. / Laguna Ln.



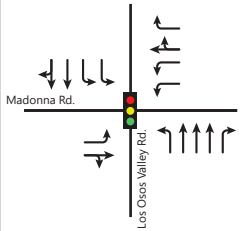
Intersection #4
Los Osos Valley Rd./Oceanaire Dr.



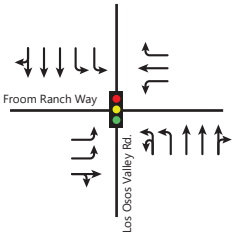
Intersection #5
Los Osos Valley Rd./Royal Way



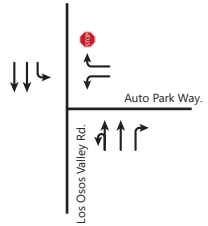
Intersection #6
Los Osos Valley Rd./Madonna Rd.



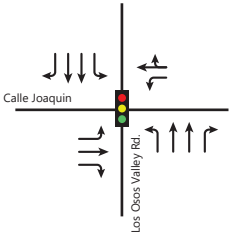
Intersection #7
Los Osos Valley Rd./Froom Ranch Way



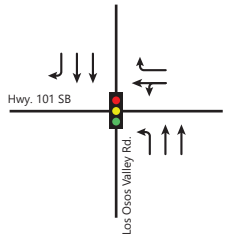
Intersection #8
Los Osos Valley Rd./Auto Park Way



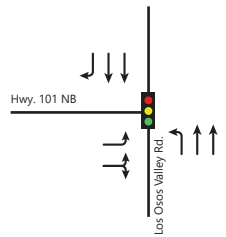
Intersection #9
Los Osos Valley Rd./Calle Joaquin



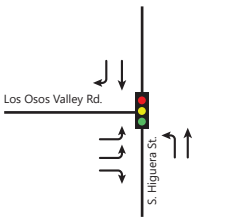
Intersection #10
Los Osos Valley Rd. / Hwy. 101 SB



Intersection #11
Los Osos Valley Rd. / Hwy. 101 NB



Intersection #12
S. Higuera St. / Los Osos Valley Rd.



LEGEND

- (X) Study Intersection ID
- Traffic Signal
- STOP Stop Sign

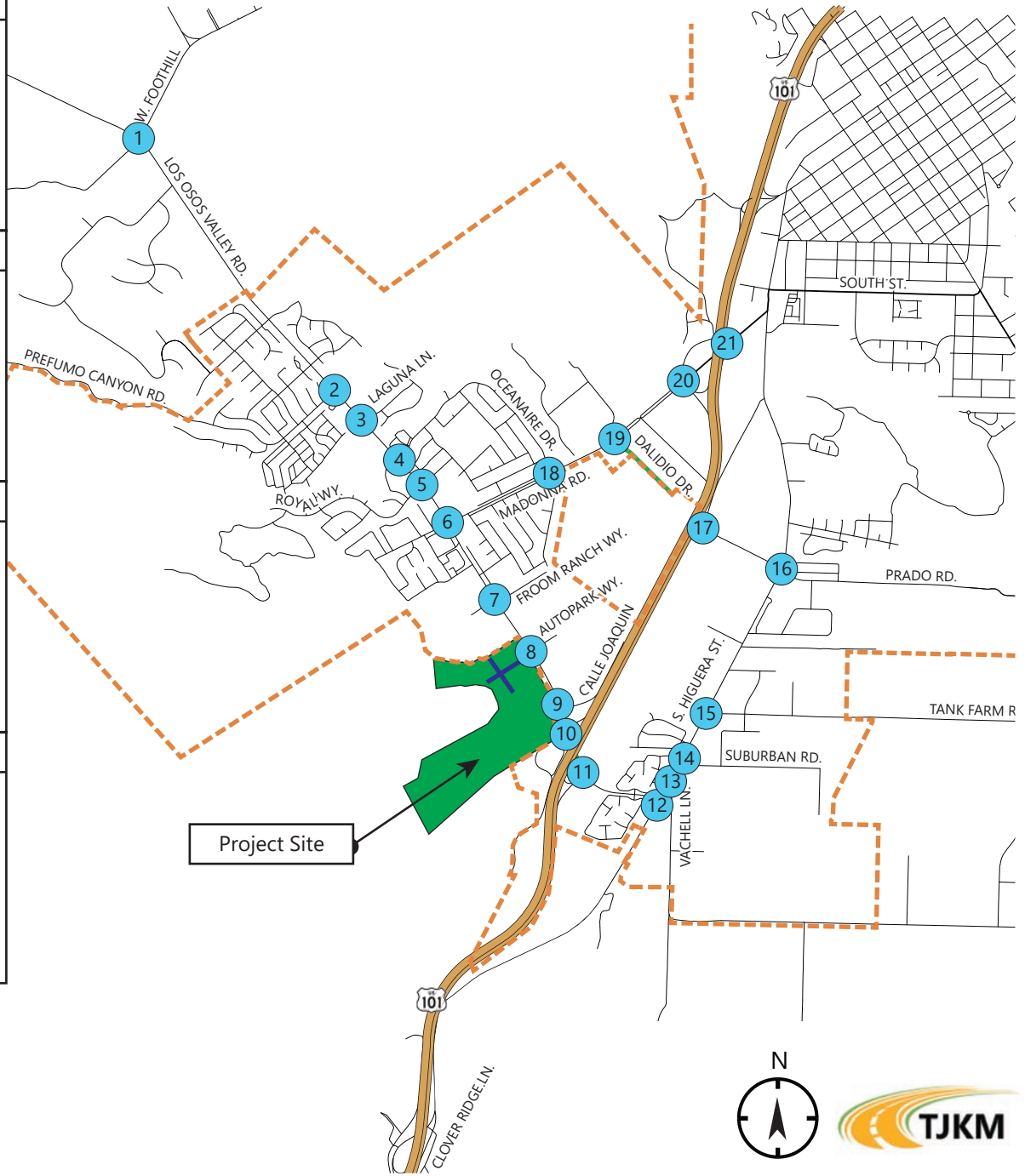
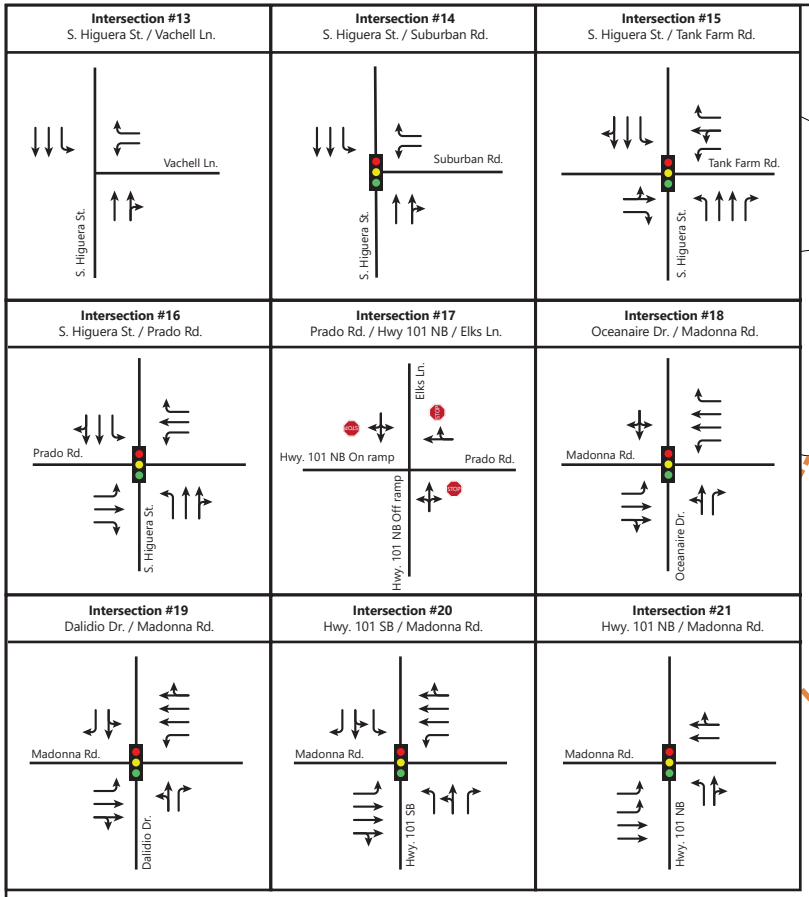
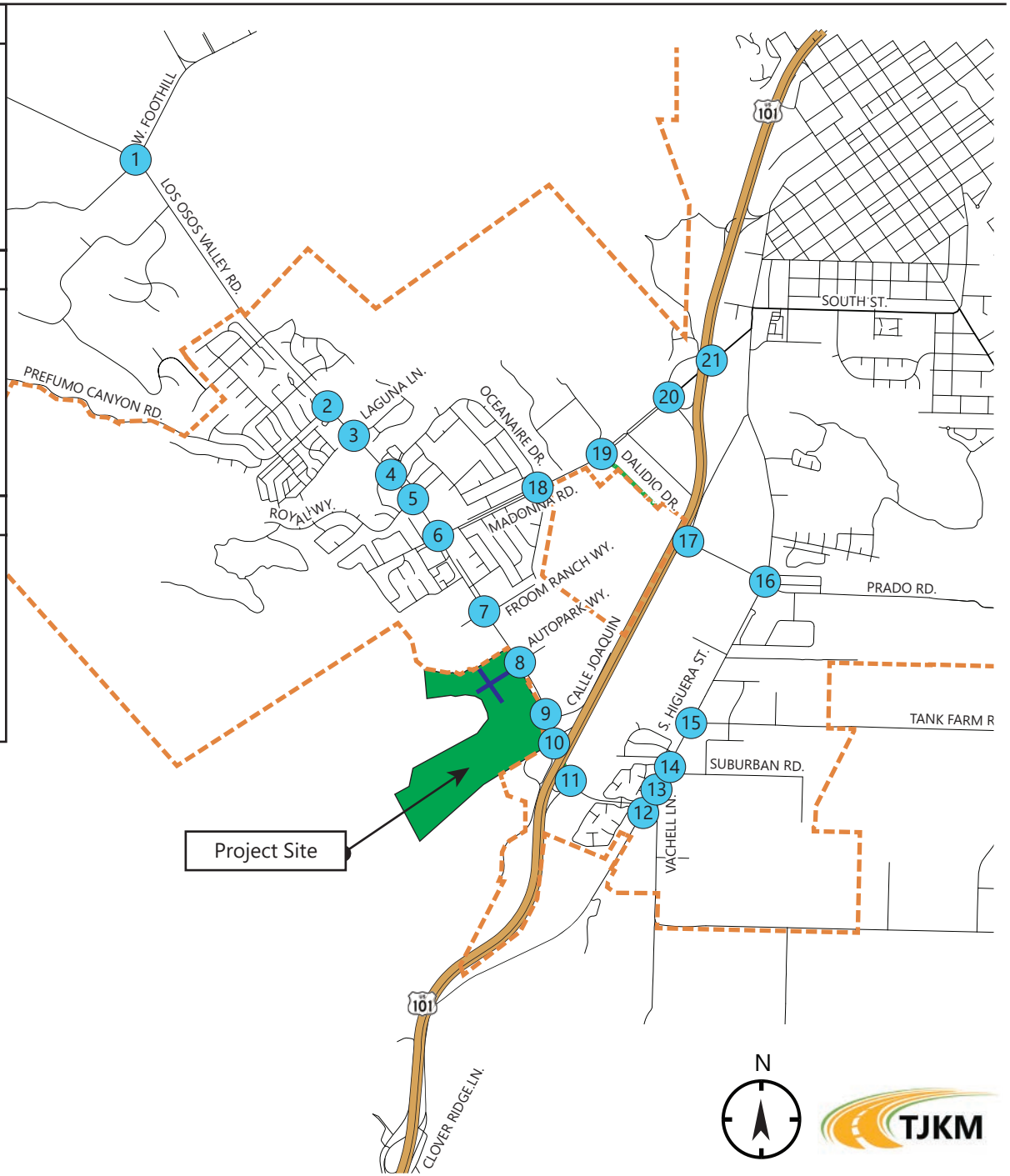


Figure 3.1-3

Existing Conditions Lane Geometries and Traffic Controls





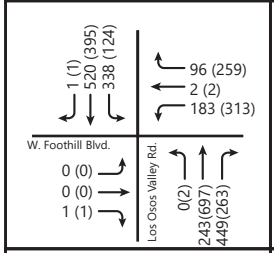
LEGEND

- X — Study Intersection ID
- Traffic Signal
- STOP — Stop Sign

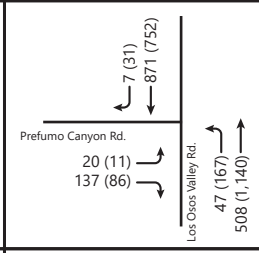
Figure 3.1-3

Existing Conditions Turning Movement Volumes

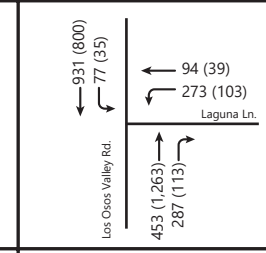
Intersection #1
W. Foothill Blvd. / Los Osos Valley Rd.



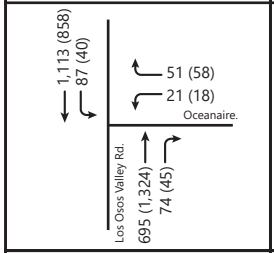
Intersection #2
Los Osos Valley Rd./Prefumo Canyon Rd.



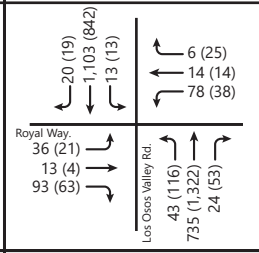
Intersection #3
Los Osos Valley Rd. / Laguna Ln.



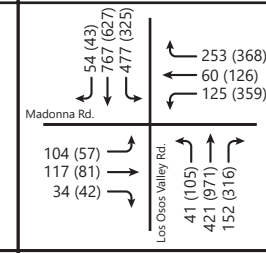
Intersection #4
Los Osos Valley Rd./Oceanaire Dr.



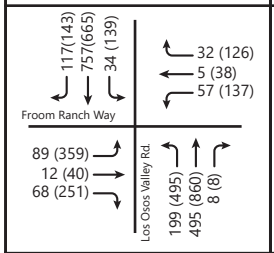
Intersection #5
Los Osos Valley Rd./Royal Way



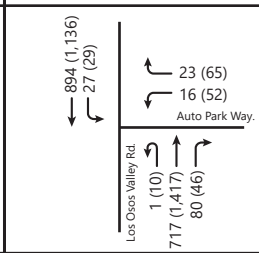
Intersection #6
Los Osos Valley Rd./Madonna Rd.



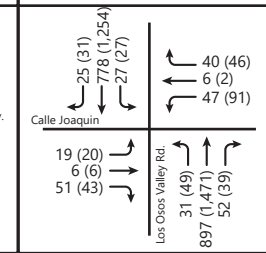
Intersection #7
Los Osos Valley Rd./Froom Ranch Way



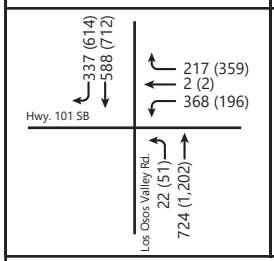
Intersection #8
Los Osos Valley Rd./Auto Park Way



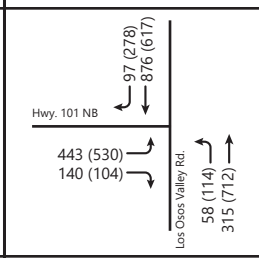
Intersection #9
Los Osos Valley Rd./Calle Joaquin



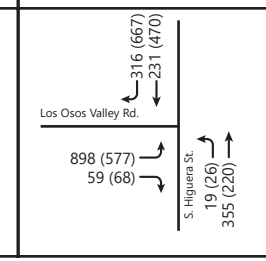
Intersection #10
Los Osos Valley Rd. / Hwy. 101 SB



Intersection #11
Los Osos Valley Rd. / Hwy. 101 NB



Intersection #12
S. Higuera St. / Los Osos Valley Rd.



LEGEND

- (X) Study Intersection ID
- XX AM Peak Hour Volumes
- (XX) PM Peak Hour Volumes

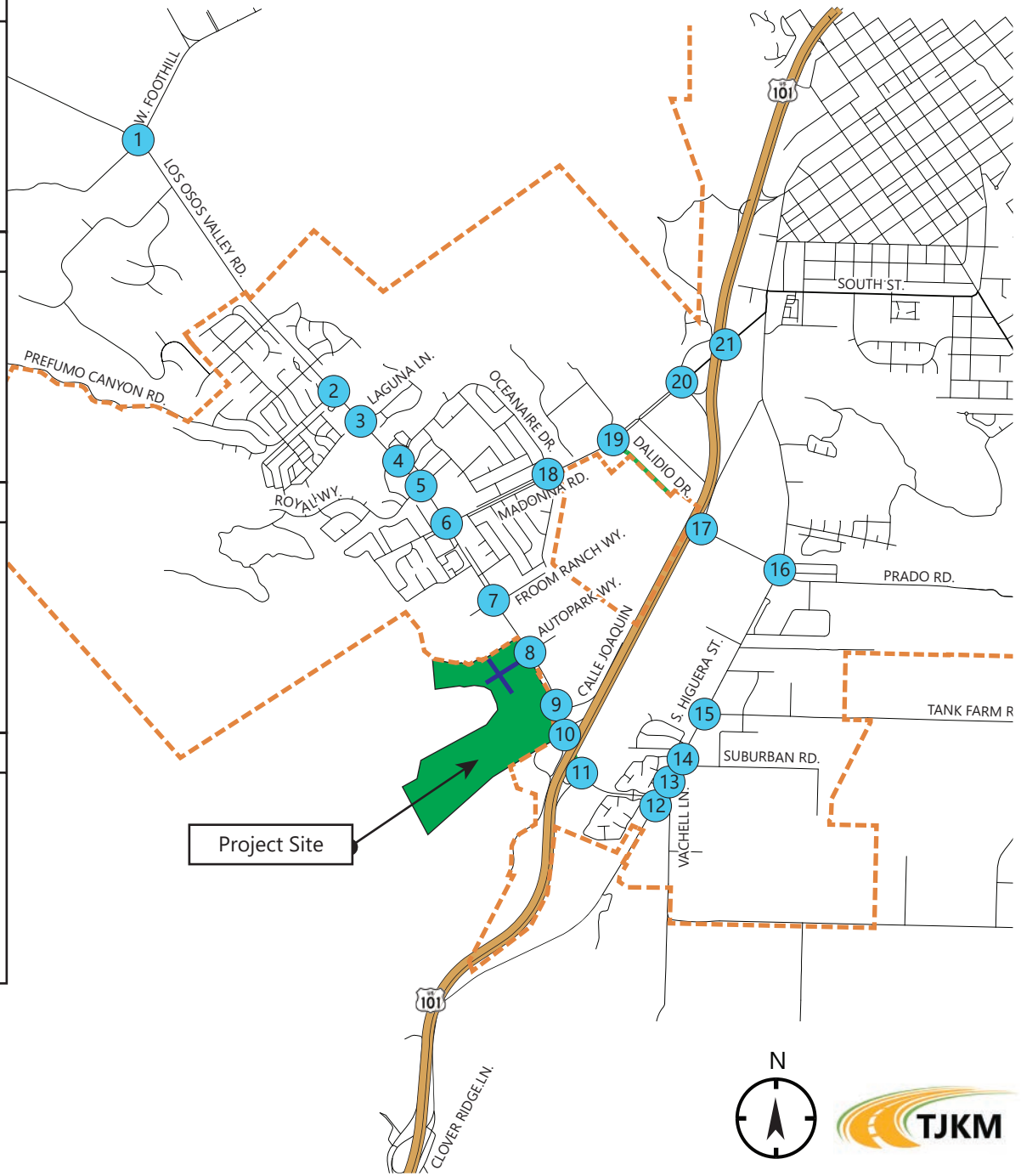
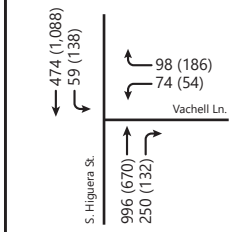


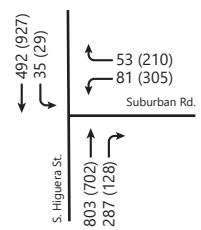
Figure 3.1-4

Existing Conditions Turning Movement Volumes

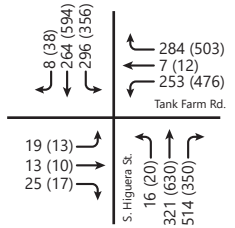
Intersection #13
S. Higuera St. / Vachell Ln.



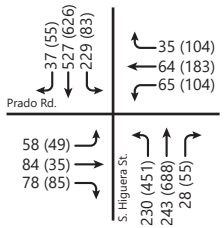
Intersection #14
S. Higuera St. / Suburban Rd.



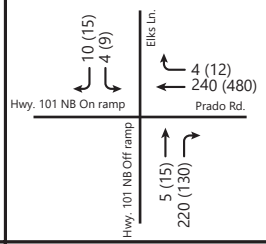
Intersection #15
S. Higuera St. / Tank Farm Rd.



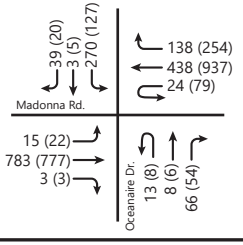
Intersection #16
S. Higuera St. / Prado Rd.



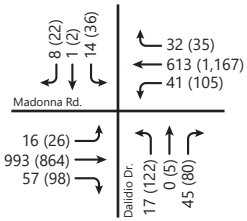
Intersection #17
Prado Rd. / Hwy 101 NB / Elks Ln.



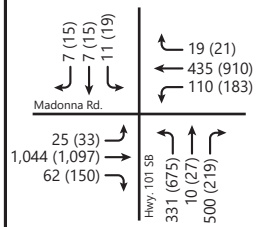
Intersection #18
Oceanaire Dr. / Madonna Rd.



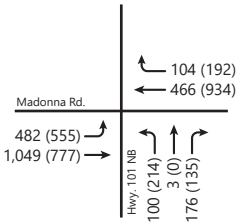
Intersection #19
Dalidio Dr. / Madonna Rd.

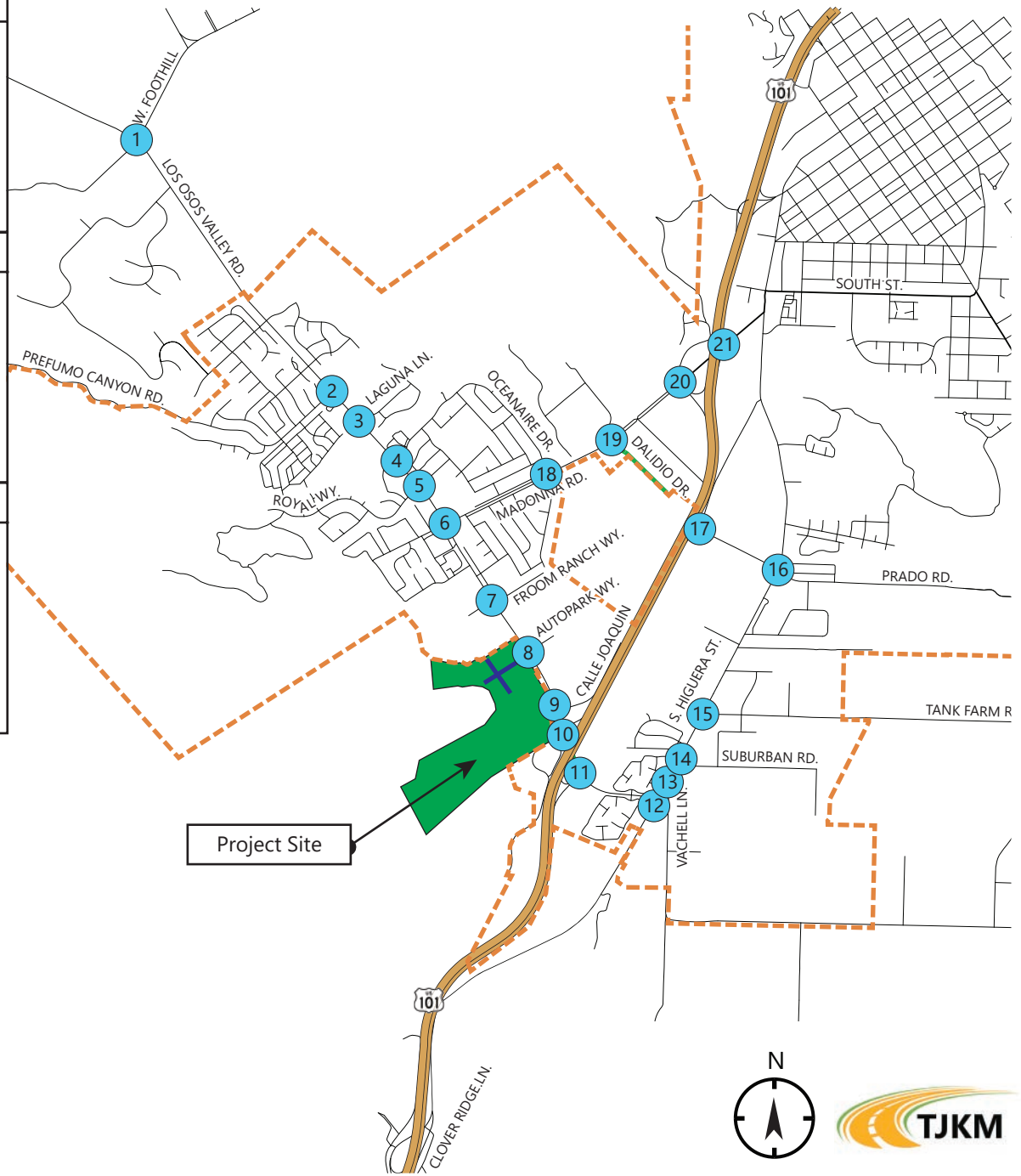


Intersection #20
Hwy. 101 SB / Madonna Rd.



Intersection #21
Hwy. 101 NB / Madonna Rd.



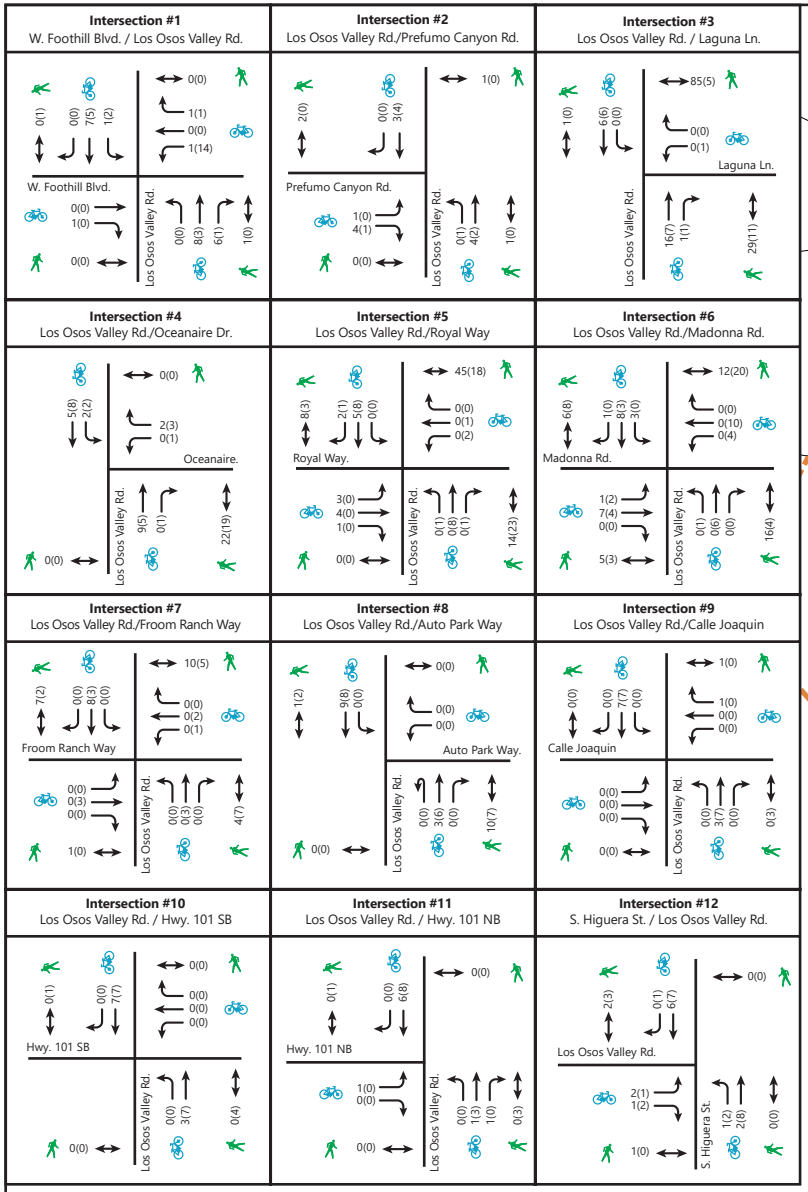


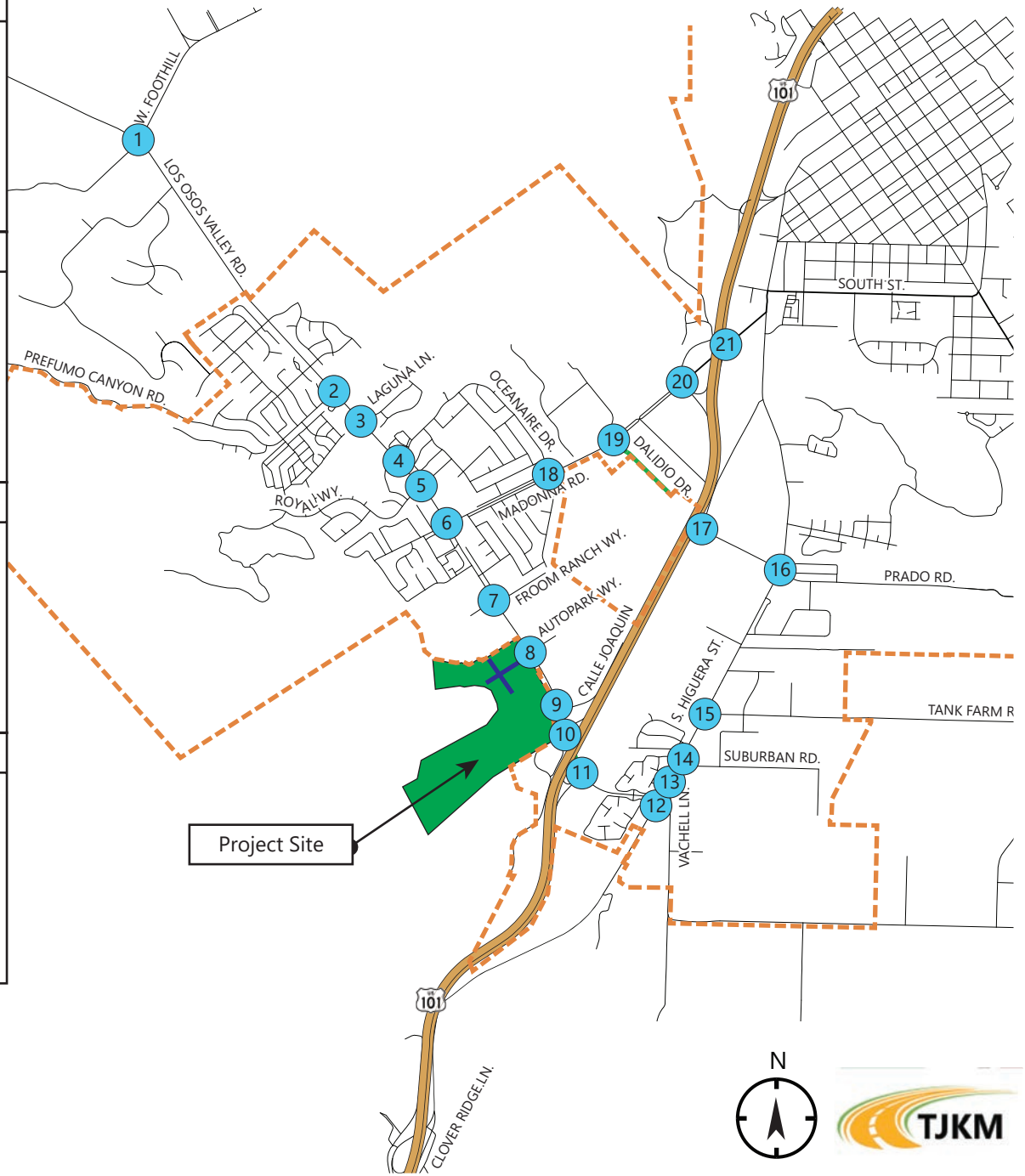
LEGEND

- (X) Study Intersection ID
- XX AM Peak Hour Volumes
- (XX) PM Peak Hour Volumes

Figure 3.1-4

Existing Conditions Pedestrian and Bicycle Counts



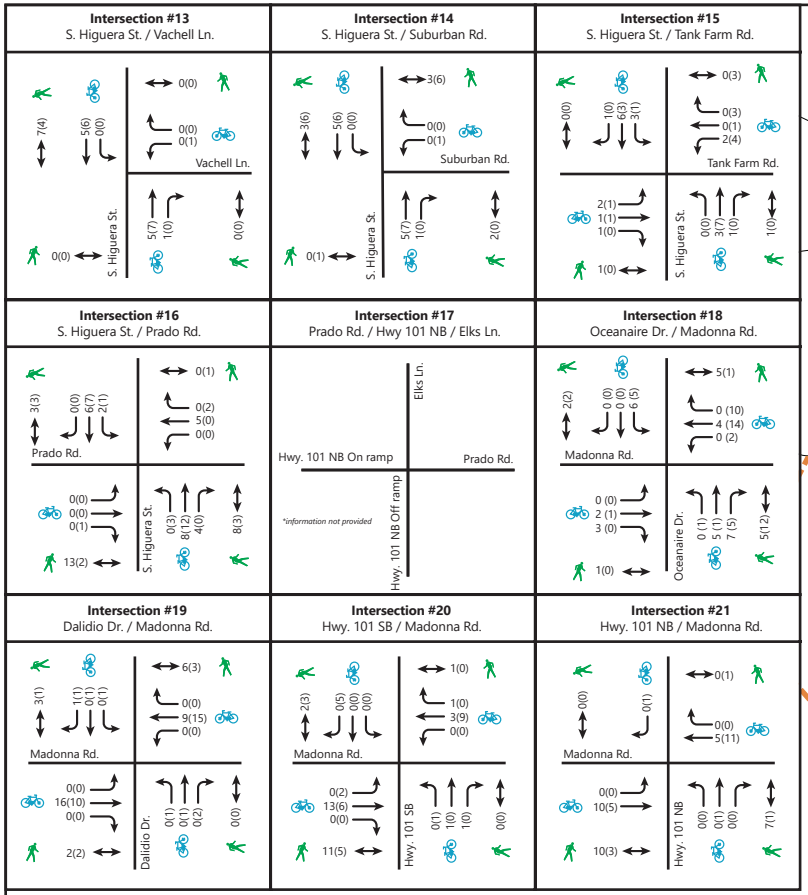


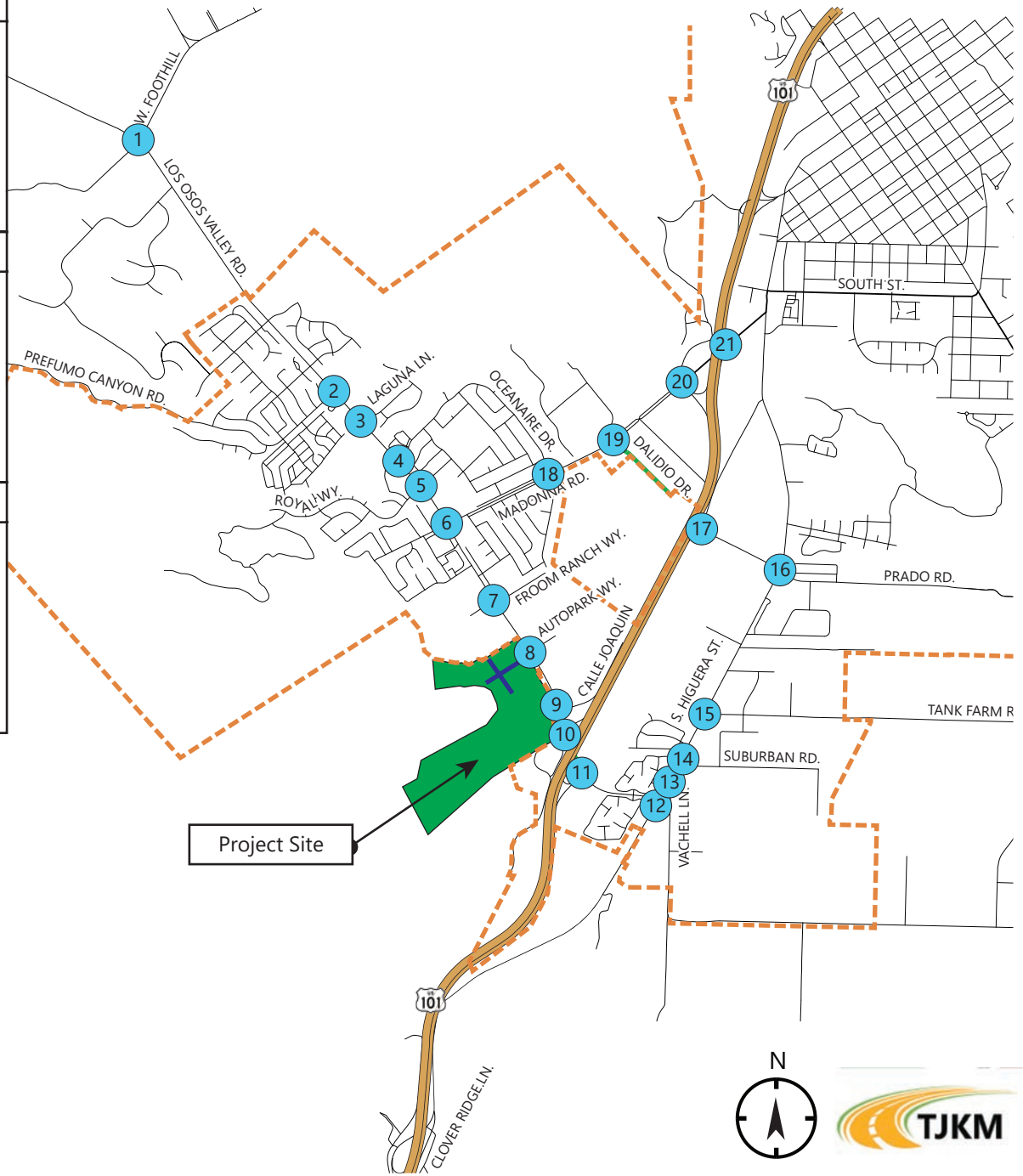
LEGEND

- (X) Study Intersection ID
- XX AM Peak Hour Volumes
- (XX) PM Peak Hour Volumes

Figure 3.1-5

Existing Conditions Pedestrian and Bicycle Counts





LEGEND

- (X) Study Intersection ID
- XX AM Peak Hour Volumes
- (XX) PM Peak Hour Volumes

Figure 3.1-5

Average Daily Traffic

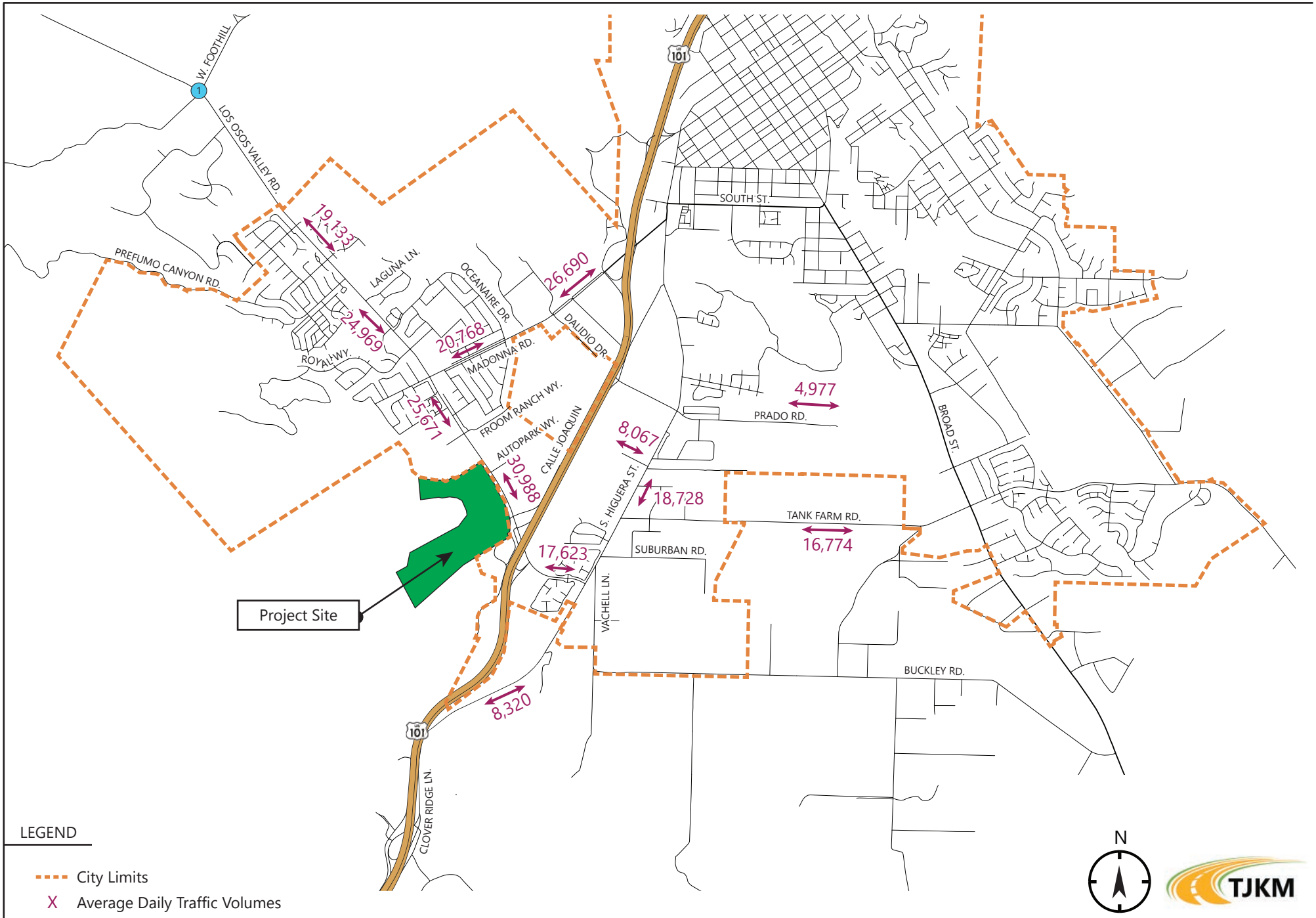


Figure 3.1-6

Table 3.1-9: Existing Intersection LOS – Automobile Analysis

ID	Study Intersections	Control	LOS Target	Peak Hour	Existing Conditions		
					Delay[1]	LOS[2]	V/C[3]
1	Los Osos Valley Road & Foothill Boulevard	Signal	D	AM	23.9	C	
				PM	37.0	D	
2	Los Osos Valley Road & Prefumo Canyon Road	TWSC[4]	D	AM	18.7	C	
				PM	20.9	C	
3	Los Osos Valley Road & Laguna Lane	Signal	D	AM	13.7	B	
				PM	8.2	A	
4	Los Osos Valley Road & Oceanaire Drive	TWSC[4]	D	AM	**52.5**	**F**	**0.57**
				PM	**42.2**	**E**	**0.42**
5	Los Osos Valley Road & Royal Way	Signal	D	AM	34.8	C	
				PM	17.6	B	
6	Los Osos Valley Road & Madonna Road	Signal	D	AM	37.4	D	
				PM	37.7	D	
7	Los Osos Valley Road & Froom Ranch Way	Signal	D	AM	19.5	B	
				PM	35.3	D	
8	Los Osos Valley Road & Auto Park Way	TWSC[4]	D	AM	14.6	B	
				PM	**37.1**	**E**	**0.52**
9	Los Osos Valley Road & Calle Joaquin	Signal	D	AM	5.3	A	
				PM	7.0	A	
10	Los Osos Valley Road & US 101 SB Ramps	Signal	C	AM	12.2	B	
				PM	12.9	B	
11	Los Osos Valley Road & US 101 NB Ramps	Signal	C	AM	23.4	C	
				PM	23.5	C	
12	Los Osos Valley Road & S. Higuera Street	Signal	D	AM	13.5	B	
				PM	14.4	B	
13	S. Higuera Street & Vachelle Lane	TWSC	D	AM	**67.8**	**F**	**0.84**
				PM	**43.8**	**E**	**0.84**
14	S. Higuera Street & Suburban Road	Signal	D	AM	5.9	A	
				PM	11.2	B	
15	S. Higuera Street & Tank Farm Road	Signal	D	AM	22.2	C	
				PM	27.7	C	
16	S. Higuera Street & Prado Road	Signal	D	AM	18.5	B	
				PM	28.9	C	
17	Prado Road/US 101 NB Ramps & Elks Lane	AWSC[5]	C	AM	9.1	A	
				PM	13.5	B	
18	Madonna Road & Oceanaire Drive[6]	Signal	D	AM	39.3	D	
				PM	27.2	C	
19	Madonna Road & Dalidio Drive	Signal	D	AM	19.9	B	
				PM	53.2	D	
20	Madonna Road & US 101 SB Ramps/Madonna Inn	Signal	C	AM	30.7	C	
				PM	31.7	C	
21	Madonna Road & US 101 NB Ramps	Signal	C	AM	14.7	B	
				PM	32.4	C	

Notes:

[1]Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.
[2]LOS – Levels of Service
[3] Volume-to-capacity ratio reported for worst movement, for locations with unacceptable LOS only
[4]TWSC – Two-way-stop controlled intersection
[5]AWSC – All-way stop controlled intersection
[6]HCM 6th Methodology does not support intersections with more than four approaches. Hence HCM 2000 Methodology used for intersection 18
Bold indicates unacceptable operations.
Delay and LOS results for intersections 22, 23 and 24 are excluded from existing conditions analysis as these intersections are evaluated in Near Term and Cumulative Scenarios.

As shown in **Table 3.1-9**, under existing conditions, most intersections meet the City's intersection LOS threshold for automobiles, except for the following three intersections (all three of which are unsignalized, with stop-sign control on the side-street approaches) that fail to meet the City's minimum intersection LOS threshold for automobiles due to delays experienced on the stop-controlled, side-street approach:

- Los Osos Valley Road and Oceanaire Drive, during a.m. and p.m. peak hours
- Los Osos Valley Road and Auto Park Way, during p.m. peak hour
- South Higuera Street and Vachell Lane, during a.m. and p.m. peak hours

Table 3.1-10: Existing Intersection LOS – Pedestrian Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	C	1.75	B	1.75	B
		WB	C	2.45	B	2.39	B
		NB	C	2.70	C	2.75	C
		SB	C	2.74	C	2.87	C
2	Los Osos Valley Road & Prefumo Canyon Road[1]	EB	C	n/a			
		WB	C				
		NB	C	**>5**	**F**	**>5**	**F**
		SB	C	**>5**	**F**	**>5**	**F**
3	Los Osos Valley Road & Laguna Lane	EB	C	n/a			
		WB	C	2.39	B	2.22	B
		NB	C	2.82	C	2.79	C
		SB	C	2.87	C	2.98	C
4	Los Osos Valley Road & Oceanaire Drive[1]	EB	C	n/a			
		WB	C				
		NB	C	**>5**	**F**	**>5**	**F**
		SB	C	n/a			
5	Los Osos Valley Road & Royal Way	EB	C	2.01	B	2.01	B
		WB	C	2.00	B	1.98	B
		NB	C	3.09	C	3.11	C
		SB	C	3.09	C	3.11	C
6	Los Osos Valley Road & Madonna Road	EB	C	2.13	B	2.13	B
		WB	C	2.97	C	3.05	C
		NB	C	2.98	C	3.16	C
		SB	C	3.36	C	3.40	C
7	Los Osos Valley Road & Froom Ranch Way	EB	C	2.50	C	2.64	C
		WB	C	2.39	B	2.44	B
		NB	C	3.08	C	3.22	C
		SB	C	3.07	C	3.21	C
8	Los Osos Valley Road & Auto Park Way[1]	EB	C	n/a			
		WB	C				
		NB	C	**>5**	**F**	**>5**	**F**
		SB	C	**>5**	**F**	**>5**	**F**
9	Los Osos Valley Road & Calle Joaquin	EB	C	2.48	B	2.48	B
		WB	C	2.09	B	2.09	B
		NB	C	3.09	C	3.34	C
		SB	C	2.96	C	3.21	C
10	Los Osos Valley Road & US 101 SB Ramps	EB	C	1.90	B	2.21	B
		WB	C	2.25	B	2.21	B
		NB	C	2.89	C	3.02	C
		SB	C	2.94	C	3.26	C
11	Los Osos Valley Road & US 101 NB Ramps	EB	C	2.45	B	2.54	C
		WB	C	1.43	A	1.43	A
		NB	C	2.78	C	2.80	C
		SB	C	2.89	C	3.00	C

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
12	Los Osos Valley Road & S. Higuera Street	EB	C	2.70	C	2.73	C
		WB	C	n/a			
		NB	C	2.30	B	2.36	B
		SB	C	2.76	C	2.82	C
13	S. Higuera Street & Vachelle Lane[1]	EB	C	n/a			
		WB	C				
		NB	C	**>5**	**F**	**>5**	**F**
		SB	C	**>5**	**F**	**>5**	**F**
14	S. Higuera Street & Suburban Road	EB	C	n/a			
		WB	C	2.18	B	2.25	B
		NB	C	2.92	C	3.05	C
		SB	C	2.71	C	2.83	C
15	S. Higuera Street & Tank Farm Road	EB	C	2.03	B	2.04	B
		WB	C	2.94	C	3.03	C
		NB	C	3.29	C	3.47	C
		SB	C	2.67	C	2.96	C
16	S. Higuera Street & Prado Road	EB	C	2.46	B	2.58	C
		WB	C	2.38	B	2.45	B
		NB	C	2.71	C	2.96	C
		SB	C	2.75	C	2.89	C
17	Prado Road/US 101 NB Ramps & Elks Lane	EB	C	n/a			
		WB	C				
		NB	C				
		SB	C				
18	Madonna Road & Oceanaire Drive	EB	C	2.75	C	2.90	C
		WB	C	3.21	C	3.30	C
		NB	C	2.01	B	2.02	B
		SB	C	2.04	B	1.97	B
		SE	C	1.75	B	1.75	B
		NE	C	1.77	B	1.75	B
19	Madonna Road & Dalidio Drive	EB	C	2.99	C	3.13	C
		WB	C	3.02	C	3.11	C
		NB	C	2.07	B	2.13	B
		SB	C	1.99	B	2.00	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	C	2.96	C	3.11	C
		WB	C	3.00	C	3.03	C
		NB	C	2.81	C	2.84	C
		SB	C	2.17	B	2.19	B
21	Madonna Road & US 101 NB Ramps	EB	C	2.96	C	2.98	C
		WB	C	2.79	C	2.79	C
		NB	C	2.00	B	2.02	B
		SB	C	2.09	B	2.13	B

Notes:
n/a - Pedestrian intersection LOS methodology excludes crossings of stop-sign controlled approaches.

[1]For unsignalized AWSC intersections, pedestrian delay is reported as pedestrian LOS methodology is not supported for crosswalks that intersect stop-sign controlled approaches. For unsignalized TWSC intersections, pedestrian LOS methodology is limited to the uncontrolled crossings.

Table 3.1-11: Existing Intersection LOS – Bicycle Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	D	2.71	C	2.71	C
		WB	D	3.27	C	3.92	D
		NB	D	2.77	C	3.03	C
		SB	D	2.56	C	1.89	B
3	Los Osos Valley Road & Laguna Lane	EB	D	n/a			
		WB	D	3.26	C	2.80	C
		NB	D	1.90	B	2.22	B
		SB	D	1.44	A	1.28	A
5	Los Osos Valley Road & Royal Way	EB	D	3.13	C	2.96	C
		WB	D	3.30	C	2.94	C
		NB	D	2.67	C	3.01	C
		SB	D	2.20	B	1.87	B
6	Los Osos Valley Road & Madonna Road	EB	D	3.38	C	3.21	C
		WB	D	3.62	D	4.28	D
		NB	D	1.66	B	2.08	B
		SB	D	2.79	C	2.47	B
7	Los Osos Valley Road & Froom Ranch Way	EB	D	3.43	C	4.28	D
		WB	D	2.04	B	2.34	B
		NB	D	1.77	B	2.09	B
		SB	D	1.72	B	1.76	B
8	Los Osos Valley Road & Auto Park Way	EB	D	n/a			
		WB	D				
		NB	D				
		SB	D				
9	Los Osos Valley Road & Calle Joaquin	EB	D	3.07	C	3.01	C
		WB	D	3.13	C	3.21	C
		NB	D	1.57	B	1.96	B
		SB	D	1.77	B	0.71	A
10	Los Osos Valley Road & US 101 SB Ramps	EB	D	n/a			
		WB	D	2.72	C	2.57	C
		NB	D	1.66	B	2.12	B
		SB	D	1.52	B	1.86	B
11	Los Osos Valley Road & US 101 NB Ramps	EB	D	3.74	D	3.77	D
		WB	D	1.39	A	1.39	A
		NB	D	1.73	B	2.05	B
		SB	D	2.22	B	2.18	B

12	Los Osos Valley Road & S. Higuera Street	EB	D	1.86	B	1.62	B
		WB	D	n/a			
		NB	D	1.97	B	1.75	B
		SB	D	2.21	B	3.22	C
14	S. Higuera Street & Suburban Road	EB	D	n/a			
		WB	D	1.21	A	1.93	B
		NB	D	2.20	B	1.91	B
		SB	D	1.95	B	2.35	B
15	S. Higuera Street & Tank Farm Road	EB	D	2.71	C	2.71	C
		WB	D	3.64	D	**4.56**	**E**
		NB	D	2.00	B	2.12	B
		SB	D	1.76	B	2.17	B
16	S. Higuera Street & Prado Road	EB	D	2.48	B	2.34	B
		WB	D	2.84	C	3.50	D
		NB	D	1.65	B	2.32	B
		SB	D	1.94	B	1.89	B
18	Madonna Road & Oceanaire Drive	EB	D	2.77	C	2.82	C
		WB	D	1.26	A	1.76	B
		NB	D	2.82	C	2.79	C
		SB	D	2.70	C	2.22	B
		SE	D	2.62	C	2.62	C
		NE	D	2.20	B	2.20	B
19	Madonna Road & Dalidio Drive	EB	D	2.15	B	2.04	B
		WB	D	1.58	B	1.94	B
		NB	D	3.05	C	3.28	C
		SB	D	2.87	C	2.95	C
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	D	1.94	B	2.00	B
		WB	D	1.62	B	1.91	B
		NB	D	3.70	D	3.66	D
		SB	D	2.94	C	2.99	C
21	Madonna Road & US 101 NB Ramps	EB	D	2.71	C	2.30	B
		WB	D	1.58	B	2.05	B
		NB	D	2.25	B	2.33	B
		SB	D	n/a			

Notes:
Bicycle LOS summary excludes unsignalized intersections and locations where no bicycle facilities are provided as HCM 6th Bike LOS Methodology do not model segments bounded by unsignalized intersections.

As shown in **Table 3.1-11**, under existing conditions, the following intersection is currently exceeding the City's minimum bicycle LOS threshold:

- South Higuera Street and Tank Farm Road in the westbound direction during p.m. peak hour, reflecting the lack of a westbound bicycle lane at the intersection approach. An existing westbound bicycle lane on Tank Farm Road terminates east of the intersection.

Table 3.1-12: Existing Conditions – 95th Percentile Queuing Analysis

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Existing Conditions
1	Los Osos Valley Road/Foothill Boulevard	WBR	180	AM	0
				PM	0
		NBL	120	AM	0
				PM	5
		NBR	370	AM	35
				PM	120
		SBL	490	AM	#485
				PM	#248
3	Los Osos Valley Road/Laguna Lane	WBL	Trap Lane	AM	90
				PM	40
		WBR	Trap Lane	AM	0
				PM	0
		NBR	80	AM	10
				PM	35
		SBL	120	AM	45
				PM	25
5	Los Osos Valley Road/Royal Way	EBR	70	AM	10
				PM	0
		WBR	70	AM	0
				PM	0
		NBL	110	AM	25
				PM	60
		SBL	160	AM	15
				PM	15
		SBR	50	AM	0
				PM	0
6	Los Osos Valley Road/Madonna Road	EBL	230	AM	**#255**
				PM	#145
		WBL	Trap Lane	AM	70
				PM	190
		WBR	170	AM	45
				PM	75
		NBL	200	AM	70
				PM	140
		NBR	175	AM	35
				PM	50
		SBL	350	AM	#330
				PM	185
7		EBL	250	AM	60

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Existing Conditions
	Los Osos Valley Road/Froom Ranch Way			PM	#240
		WBL	295	AM	75
				PM	195
		WBR	50	AM	0
				PM	45
		NBL	300	AM	110
				PM	255
		SBL	160	AM	30
				PM	100
8	Los Osos Valley Road/Auto Parkway (Project Driveway)	EBL	100	AM	-
				PM	-
		EBR	100	AM	-
				PM	-
		WBL	Trap Lane	AM	-
				PM	-
		WBR	175	AM	-
				PM	-
		NBL	200	AM	-
				PM	-
		SBL	100	AM	-
				PM	-
		SBR	100	AM	-
				PM	-
9	Los Osos Valley Road/Calle Joaquin	EBL	260	AM	25
				PM	35
		EBR	260	AM	10
				PM	10
		WBL	100	AM	50
				PM	**105**
		NBL	130	AM	10
				PM	m5
		NBR	130	AM	20
				PM	m5
		SBL	120	AM	20
				PM	10
		SBR	120	AM	0
				PM	5
10	Los Osos Valley Road/US 101 SB Ramps	WBR	190	AM	110
				PM	**245**
		NBL	220	AM	m25
				PM	m60

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Existing Conditions
		SBR	120	AM	50
				PM	**#220**
		EBL	610	AM	290
				PM	#330
11	Los Osos Valley Road/US 101 NB Ramps	NBL	400	AM	75
				PM	120
		SBR	133	AM	m0
				PM	0
12	Los Osos Valley Road/S. Higuera Street	EBL	Trap Lane	AM	#315
				PM	215
		EBR	100	AM	40
				PM	40
		NBL	200	AM	15
				PM	20
		SBR	Trap Lane	AM	65
				PM	200
14	S. Higuera Street/Suburban Road	WBL	170	AM	80
				PM	**270**
		WBR	Trap Lane	AM	30
				PM	70
		SBL	170	AM	25
				PM	25
15	S. Higuera Street/Tank Farm Road	EBR	Trap Lane	AM	0
				PM	0
		WBL	Trap Lane	AM	165
				PM	340
		WBR	250	AM	55
				PM	180
		NBL	140	AM	40
				PM	55
		NBR	100	AM	85
				PM	30
		SBL	165	AM	**#410**
				PM	**#760**
16	S. Higuera Street/ Prado Road	EBL	Trap Lane	AM	60
				PM	75
		EBR	100	AM	15
				PM	20
		WBL	105	AM	70
				PM	120
		WBR	200	AM	0

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Existing Conditions
				PM	15
		NBL	100	AM	**195**
				PM	**#525**
		SBL	200	AM	**#210**
				PM	110
18	Madonna Road/Oceanaire Drive	EBL	115	AM	40
				PM	40
		WBL	115	AM	#55
				PM	**#155**
		WBR	100	AM	0
				PM	0
		NBR	50	AM	0
				PM	0
19	Madonna Road/Dalidio Drive	EBL	120	AM	40
				PM	55
		WBL	280	AM	70
				PM	150
		NBR	150	AM	10
				PM	45
		SBR	50	AM	0
				PM	0
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EBL	100	AM	50
				PM	55
		WBL	260	AM	145
				PM	m#215
		NBL	Trap Lane	AM	185
				PM	#425
		NBR	275	AM	125
				PM	25
		SBL	Trap Lane	AM	20
				PM	30
		SBR	100	AM	0
				PM	0
21	Madonna Road/US 101 NB Ramps	EBL	435	AM	125
				PM	#295
		NBL	185	AM	90
				PM	180

Notes:
Queue length rounded to nearest five feet. Queuing analysis is reported for signalized intersections only.
Bold: 95th percentile volume exceeds capacity.
m queue is metered by upstream intersection.
95th percentile queue exceeds capacity

Trap - denotes design where the thru-lane terminates in a turn-lane.
Westbound thru-lane (WBL); Westbound right-turn lane (WBR); Eastbound thru-lane (EBL); Northbound thru-lane (NBL); Northbound right-turn lane (NBR); Northbound trap (NBT); Southbound thru-lane (SBL); Southbound trap (SBT); Southbound right-turn lane (SBR)

As shown in **Table 3.1-12**, following three intersections have vehicle queues that exceed lane capacity during a.m. or p.m. peak hours:

- Los Osos Valley Road and Madonna Road (EBL during a.m. peak hour)
- Los Osos Valley Road and Calle Joaquin (WBL during p.m. peak hour)
- Los Osos Valley Road and US 101 SB Ramps (SBR and WBR during p.m. peak hour)
- South Higuera Street and Suburban Street (WBL during p.m. peak hours)
- S Higuera Street and Tank Farm Road (SBL during both the a.m. and p.m. peak hour)
- South Higuera Street and Prado Road (NBL during both the a.m. and p.m. peak hour and SBL during a.m. peak hour)
- Madonna Road and Oceanaire Drive (WBL during p.m. peak hour)

Table 3.1-13 through **Table 3.1-16** provides a summary of the multimodal a.m. and p.m. peak hour segment LOS under existing conditions. As shown in **Table 3.1-13**, under existing conditions, the following roadway segments currently exceed City's minimum automobile LOS threshold:

- Los Osos Valley Road from Oceanaire Drive to Madonna Road operates at LOS F during a.m. and p.m. peak hour in the southbound direction
- Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps operates at LOS E during p.m. peak hour in the southbound direction
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS E during p.m. peak hour in both southbound and northbound directions

As shown in **Table 3.1-14**, under existing conditions, the following roadway segments exceed City's minimum pedestrian LOS threshold:

- Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive operates at LOS D during a.m. peak hour in the southbound direction and LOS D during p.m. peak hour in the northbound direction.
- Los Osos Valley Road from Oceanaire Drive to Madonna Road operates at LOS D during a.m. peak hour in the southbound direction.
- Los Osos Valley Road from Madonna Road to Froom Ranch Way operates at LOS F during a.m. peak hour and at LOS D during p.m. peak hour in the northbound direction.
- Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps operates at LOS D during a.m. peak hour in the southbound direction and operates at LOS D during p.m. peak hour in the northbound direction.

- Los Osos Valley Road from US 101 NB Ramps to South Higuera Street operates at LOS D during a.m. and p.m. peak hours in the southbound direction and operates at LOS D during a.m. peak hour in the northbound direction.
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS D during p.m. peak hours in the southbound direction.
- South Higuera Street from Tank Farm Road to Prado Road operates at LOS F during a.m. and p.m. peak hours in the southbound direction.
- Madonna Road from Los Osos Valley Road to Dalidio Drive operates at LOS F during a.m. peak hour in the eastbound direction and operates at LOS F during a.m. peak hour in the westbound direction and at LOS D during p.m. peak hour in the westbound direction.

Table 3.1-17 and **Table 3.1-18** provides a summary of the existing US 101 mainline, ramp junction and weaving sections operations during the a.m. and p.m. peak hour conditions. As shown in **Table 3.1-17**, under existing conditions, the following freeway segments currently exceed Caltrans minimum LOS thresholds:

- US 101 southbound, north of South Higuera Street operates at LOS D during p.m. peak hour
- US 101 northbound, south of Madonna Road operates at LOS D during p.m. peak hour
- US 101 NB, Madonna Road Off Ramp operates at LOS D during a.m. and p.m. peak hour
- US 101 SB Madonna Road On Ramp operates at LOS D during p.m. peak hour

Detailed roadway segment analysis worksheets are included in **Appendix C**, detailed freeway analysis worksheets for mainline, merge and diverge worksheets are attached in **Appendix D**, and detailed Leisch method analysis worksheets for weave segments are attached in **Appendix E**.

Table 3.1-13: Existing Segment LOS: Automobile Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	32.16	45.46	70.74%	B	33.98	45.46	74.75%	B
		NB	D	29.27	45.45	64.39%	C	28.32	45.45	62.31%	C
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	**11.22**	**42.64**	26.31%	**F**	**11.61**	**42.64**	27.2%	**F**
		NB	D	23.25	45.68	50.90%	C	23.03	45.68	50.4%	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	27.17	44.82	60.62%	C	19.51	44.83	43.5%	D
		NB	D	20.84	44.82	46.50%	D	20.85	44.82	46.5%	D
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	39.24	44.80	87.59%	A	35.99	44.80	80.3%	A
		NB	D	33.43	45.22	73.93%	B	28.47	45.22	63.0%	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	22.43	45.33	49.48%	D	**17.79**	**45.33**	39.2%	**E**
		NB	D	19.92	40.66	49.00%	D	23.07	45.36	50.9%	C
6	Los Osos Valley Road from US 101 NB Ramps to South Higuera Street	SB	D	22.51	40.64	55.39%	C	24.06	40.78	59.0%	C
		NB	D	27.58	41.19	66.96%	C	32.02	45.77	70.0%	B
7	South Higuera Street from City Limit south to US 101/Clover Ridge Lane	SB	D	44.67	45.72	97.70%	A	44.02	45.72	96.3%	A
		NB	D	40.60	45.73	88.78%	A	42.49	45.73	92.9%	A
8	South Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	24.76	45.33	54.62%	C	23.36	45.34	51.5%	C
		NB	D	20.23	45.68	44.29%	D	**15.04**	**45.69**	**32.9%**	**E**
9	South Higuera Street from Tank Farm Road to Prado Road	SB	D	32.70	45.21	72.33%	B	25.66	45.23	56.7%	C
		NB	D	29.99	45.21	66.33%	C	28.19	45.24	62.3%	C

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
10	Tank Farm Road from South Higuera Street to Broad Street	EB	D	34.11	43.15	79.05%	B	34.37	43.15	79.7%	B
		WB	D	33.95	42.40	80.07%	A	34.66	42.38	81.8%	A
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	25.85	38.92	66.42%	C	26.36	39.14	67.3%	B
		WB	D	21.51	38.84	55.38%	C	21.21	39.15	54.2%	C

Notes:
Bold indicates unacceptable operations.

Table 3.1-14: Existing Segment LOS: Pedestrian Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	C	**3.54**	**D**	3.33	C
		NB	C	3.22	C	**4.05**	**D**
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	C	**3.57**	**D**	3.13	C
		NB	C	2.82	C	3.10	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	C	3.29	C	3.34	C
		NB	C	**3.12**	**F**	**3.51**	**D**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	C	**4.03**	**D**	**4.17**	**D**
		NB	C	3.30	C	3.36	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	C	**3.61**	**D**	3.43	C
		NB	C	3.30	C	**3.65**	**D**
6	Los Osos Valley Road from US 101 NB Ramps to South Higuera Street	SB	C	**4.18**	**D**	**3.62**	**D**
		NB	C	**3.51**	**D**	3.17	C
7	South Higuera Street from City Limit south to US 101/Clover Ridge Lane	SB	C	-	-	-	-
		NB	C	-	-	-	-
8	South Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	C	3.10	C	**3.66**	**D**
		NB	C	2.71	C	2.81	C
9	South Higuera Street from Tank Farm Road to Prado Road	SB	C	**3.32**	**F**	**4.14**	**F**
		NB	C	2.45	C	3.19	C
10	Tank Farm Road from South Higuera Street to Broad Street	EB	C	-	-	-	-
		WB	C	-	-	-	-
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	C	**4.17**	**F**	3.05	C
		WB	C	**3.58**	**F**	**3.93**	**D**

Notes:
Bold indicates unacceptable operations.

Table 3.1-15: Existing Segment LOS: Bicycle Analysis

Existing Conditions - Bicycle Segment LOS							
ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.00	B	1.92	A
		NB	D	1.57	A	1.87	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.37	C	2.20	B
		NB	D	1.57	A	1.76	A
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	2.60	C	2.61	C
		NB	D	1.41	A	1.77	A
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	2.39	C	2.56	C
		NB	D	1.84	A	1.98	A
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	2.80	C	2.76	C
		NB	D	2.50	C	2.87	C
6	Los Osos Valley Road from US 101 NB Ramps to South Higuera Street	SB	D	2.36	C	2.31	C
		NB	D	1.80	A	1.84	A
7	South Higuera Street from City Limit south to US 101/Clover Ridge Lane	SB	D	1.49	A	1.72	A
		NB	D	1.60	A	1.48	A
8	South Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	2.49	C	2.84	C
		NB	D	2.82	C	2.85	C
9	South Higuera Street from Tank Farm Road to Prado Road	SB	D	2.38	C	2.65	C
		NB	D	1.98	A	2.36	C
10	Tank Farm Road from South Higuera Street to Broad Street	EB	D	2.67	C	2.64	C
		WB	D	2.90	C	2.94	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.04	C	2.97	C
		WB	D	2.16	B	2.45	C

Notes:
Bold indicates unacceptable operations.

Table 3.1-16: Existing Segment LOS: Transit Analysis

Existing Conditions - Transit Segment LOS							
ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.89	C	2.84	C
		NB	D	1.73	A	1.93	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.60	C	2.43	C
		NB	D	2.80	C	2.86	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	3.53	D	3.74	C
		NB	D	2.04	B	2.12	B
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	3.12	C	3.21	C
		NB	D	3.21	C	3.37	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	3.86	D	3.34	C
		NB	D	3.59	D	3.29	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	3.13	C	3.96	D
		NB	D	4.06	D	4.14	D
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	3.51	D	3.96	D
		NB	D	3.21	C	4.14	D
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.21	C	3.13	C
		WB	D	3.29	C	3.35	C

Notes:
Segments with no transit stops are excluded from the analysis.

Table 3.1-17: Existing Segment LOS: Freeway Mainline, Ramps & Weaving Sections Analysis

#	Interchange Location	Target LOS	Segment Type	Lanes	AM Peal Hour			PM Peal Hour		
					Volume	Density (pc/mi/ln)	LOS	Volume	Density (pc/mi/ln)	LOS
US 101 Northbound										
	US 101 NB, south of S Higuera Street	C	Freeway	2	2,336	19.8	C	2,374	20.2	C
	US 101 NB, south of Los Osos Valley Road	C	Freeway	2	2,601	22.1	C	1,991	16.9	B
	US 101 NB Los Osos Valley Road Off Ramp	C	Diverge	1	546	26.8	C	634	20.6	C
	US 101 NB Los Osos Valley Road On Ramp	C	Merge	1	215	26.9	C	392	22.5	C
	US 101 NB, north of Prado Road	C	Freeway	2	2,311	19.6	C	2,224	18.9	C
	US 101 NB Prado Road Off Ramp	C	Diverge	1	225	23.5	C	145	22.5	B
	US 101 NB Prado Road On Ramp	C	Merge	1	250	24.4	C	495	26.1	C
	US 101 NB, south of Madonna Road	C	Freeway	2	2,843	24.3	C	3,097	**26.9**	**D**
	US 101 NB, Madonna Road Off Ramp	C	Diverge	1	279	**28.9**	**D**	349	**31.6**	**D**
US 101 Southbound										
	US 101 SB, north of Madonna Road	C	Freeway	2	1,968	16.7	B	2,926	25.1	C
	US 101 SB Madonna Road On Ramp	C	Merge	1	179	20.4	C	348	**32.4**	**D**
	US 101 SB, north of Prado Road	C	Freeway	2	1,828	15.5	B	2,976	25.6	C
	US 101 SB, south of Los Osos Valley Road	C	Freeway	2	1,213	10.3	A	2,211	18.8	C
	US 101 SB Los Osos Valley Road Off Ramp	C	Diverge	1	587	12.5	B	557	22.7	C
	US 101 SB Los Osos Valley Road On Ramp	C	Merge	1	359	14.8	B	667	27.0	C
	US 101 SB, north of S Higuera Street	C	Freeway	2	2,177	18.5	C	3,519	**31.9**	**D**

Notes:
Bold indicates unacceptable operations.

Table 3.1-18: Existing Weaving Segment LOS: Leisch Method

Interchange Location	Target LOS	Segment Type	No. of Lanes	Length	AM Peak		PM Peak	
					Total Volume	LOS	Total Volume	LOS
US 101 Northbound								
Between Los Osos Valley Road and Prado Road	C	Weave	2	4,380	3,041	A	2,761	A
Between Prado Road and Madonna Road	C	Weave	2	2,280	3,362	A	3,926	A
US 101 Southbound								
Between Madonna Road and Los Osos Valley Road	C	Weave	2	5,490	2,734	A	3,881	A

3.1.8 Near Term (2025) Analysis Scenarios

Near Term conditions represent conditions with approved and pending developments and roadway improvement projects in place. For the purposes of this analysis, this is estimated at roughly Year 2025. Based on the list of approved, pending and reasonably foreseeable projects, future traffic demands were estimated. The Near Term conditions analysis conducted for the study includes following two scenarios:

- Scenario 1 – Near Term conditions with partial interchange at US 101/Prado Road (Overcrossing and NB ramps only)
- Scenario 2 – Near Term conditions without the Prado Interchange

Land development and transportation projects anticipated to be completed within the Year 2025 timeframe were identified by the City for inclusion in the Near Term analysis.

Near Term Land Developments

The full list of land development projects were provided by the City. Notable projects include buildout of both the San Luis Ranch Specific Plan and Avila Ranch Specific Plan Areas. In addition, several smaller projects provided by the City were included by manually adding trips associated with these uses. **Table 3.1-19** summarizes the Near Term land development projects included in the analysis.

The growth in traffic volumes, as well as bicycle, pedestrian, and transit forecasts, were developed to be largely consistent with the growth increments of the recently prepared *San Luis Ranch MMTIS* Near Term plus Project scenario. Traffic forecasts were developed by applying a growth increment to existing volumes to reflect growth through year 2025. The specific growth increment used was referenced from a combination of sources to provide consistency with other recent analyses—the Prado Road Interchange (PSR), SL Ranch and Avila Ranch EIRs, and the City's Travel Demand Forecasting Model.

Table 3.1-19 – Near Term Land Development Project List

#	Project	Description
1	San Luis Ranch	Single Family Residential (large-lot): 200 Dwelling Units Single Family Residential (small-lot): 100 Dwelling Units Multi Family Residential (high-density, including Affordable Units): 280 Dwelling Units
		Commercial: 150,000 SQFT
		Hotel: 200 Rooms
		Office: 100,000 SQFT
		Parks & Recreational: 5.8 Acres (3.39 acres parks and 2.41 acres recreation for the Bob Jones Trail)
		Agricultural Heritage and Learning Center: 2.70 acres
2	Avila Ranch	Low Density Housing: 105 Dwelling Units
		Medium Density Housing: 305 Dwelling Units
		High Density Housing: 310 Units
		Commercial: 15,000 SQFT
3	Long-Bonetti	Public Market w/ 47,000 SQFT commercial

#	Project	Description
4	Coker/Ellsworth	35 lots zoned for Service Commercial. Total developable area 15.84 acres
5	Tank Farm Commerce Park	29,000 SQFT commercial warehouse
6	Chevron Tank Farm Project	800,000 SQFT Business Park & Service Commercial
7	Digital West	77,500 SQFT Office
8	SESLOC (650 Tank Farm)	108 assisted living DU; 30 bed memory care; 259 residential units; 62,500 SQFT commercial
9	Twin Creeks	4,100 SQFT commercial; 102 apartments
10	Orcutt Area (Righetti Ranch)	370 residential units (286 SF; 84 MF)
11	Orcutt Area (West Creek)	172 residential units (67 SF; 105 condo)
12	Orcutt Area (Pratt Ranch Phase 1)	30 condo units; 4 live/work; 1,500 SQFT commercial
13	Orcutt Area (Imel Ranch)	18 SF residential units
14	Orcutt Area (Jones Subdivision)	65 SF residential units; 15,000 SQFT commercial
16	Courtyard of Serra Meadows	36 apartment units
17	Serra Meadows Prado Frontage	31 SF residential units
18	Perry Ford & VW Dealership	Expansion w/ additional 7,900 SQFT commercial (auto dealership)
19	Town Place Suites	114-room hotel
20	BMW Dealership	23,945 SQFT auto dealership
21	Homeless Services Center	20,000 SQFT homeless services
22	Higuera Brew	15,500 SQFT Brewery/Restaurant
23	Bridge Street (Terraza)	26 condos
24	Bridge Street Project	21,000 SQFT industrial/warehouse
25	207 Higuera Mixed-Use	1,100 SQFT commercial; 6 apartments
26	Aerovista Place	37,000 SQFT office
27	SLO Brew Rock	31,300 SQFT brewery/restaurant/night club
28	Airport Business Center	75,000 SQFT business center/warehouse
29	Broad Street Workforce Housing	40 condo units; 1,300 SQFT commercial
30	McCarthy Steel	9,840 SQFT Industrial/Warehouse
31	Iron Works	Mixed-Use (46 MF units; 4,400 SQFT commercial)
32	Poly Performance	30,000 industrial warehouse
33	950 Orcutt Mixed-Use	75 MF residential units; 6,800 SQFT commercial
34	Broad Street Mixed-Use	11 MF residential units; 3,000 SQFT commercial
35	Victoria Crossing	36 MF residential units; 5500 SQFT retail
36	The Junction	69 MF residential units; 3,000 SQFT commercial
37	The Yard	43 MF residential units
38	Mountainbrook Church Development	120,038 SQFT of Church-related development in three phases

Source: Provided by the City of San Luis Obispo

Near Term Transportation Improvements

The Near Term analysis includes transportation infrastructure improvement projects included in the City's impact fee program, capital improvement program, and as required as conditions of approval for approved Near Term land development projects. **Table 3.1-20** summarizes the Near Term transportation projects assumed in the analysis.

The most notable planned transportation improvement project includes the Prado Road Interchange Project, which is assumed to be in place for Near Term Scenario 1 only. The PSR for the Prado Road Interchange Project has been completed as a collaborative effort between City of San Luis Obispo and Caltrans. The PSR narrowing the range of interchange alternatives to be carried forward for further development in PA/ED phase, which is currently underway. For Near Term conditions, the interchange project includes improvements to extend Prado Road over US 101 to connect with Dalidio Drive, reconstruction of the existing U.S. Route 101 (US 101) northbound (NB) off-ramp and on- ramp connections with Prado Road, and construction of an auxiliary lane on northbound US 101 between the Prado Road and Madonna Road in order to provide congestion relief, operational efficiency and multimodal connectivity.

A later phase of the Prado Interchange Project (2035 and beyond) will include SB ramps and a potential collector-distributor system on the SB side of US 101. While a final alternative has not been defined, for purposes of this analysis, a traditional diamond configuration is assumed with roundabout control at the ramp intersections (consistent with Alternative 1R from the PSR).

Table 3.1-20 – Near Term Transportation Project List

#	Project	Description
1	Prado Road Bridge Replacement	Replace existing bridge over San Luis Obispo Creek; widen to 4 thru lanes plus center turn lane. Includes width for bike lanes and sidewalk-level Class I Path on both sides of Prado.
2	Prado/S. Higuera Improvements	Install 2nd NB left-turn lane
		EB approach to remain as exists now (1 L, 1 T, 1 R).
		Extend WB right-turn storage
		Additional bicycle/pedestrian safety improvements include protected intersection at NW & SW corners, bike box at westbound approach and two-stage left-turn box for NB to WB movement.
3	Prado Road Interchange & Dalidio/Prado Widening	Two Near-Term Scenarios considered for FRSP Analysis:
		New interchange with overcrossing at Highway 101/Prado w/ NB ramps and full land use buildout for San Luis Ranch project.
		No overcrossing or modifications to Prado/US 101 NB ramps, only phase 1 development for San Luis Ranch.
		Interchange Improvements include:
		Widen Dalidio/Prado to 4 lanes w/ center turn lane/median from Madonna to S. Higuera, including bike lanes and Class I Paths on both sides of Prado.
		For near-term, assume bike lanes only between Hwy 101/NB Ramps and SL Creek Bridge

		Elks Lane to be realigned apx. 700' to the southeast.
4	Froom Ranch Way Extension	Extend Froom Ranch Way from LOVR to Dalidio as 2-lane collector with bike lanes and Class I Bike Path from Perfumo Creek to Dalidio
5	LOVR/Froom Improvements	LOVR/Froom improvements
		Install dedicated EB right-turn lane
		Extend storage of WB right-turn lane
		Install 2nd WB left-turn lane
		Construct protected intersection for bike/ped safety
6	Froom/Dalidio Roundabout	Construct two-lane roundabout at Froom/Dalidio
7	Madonna/Dalidio Improvements	Madonna/Dalidio improvements
		Extend WB left-turn storage
		Install 2nd WB left-turn lane
		Install EB right-turn lane
		Install split phasing for NB/SB & optimize timing
		Install 2nd NB left-turn lane
8	LOVR/S. Higuera	Extend EB right-turn storage
9	S. Higuera/Vachell	Restrict Vachell access to right-in/right-out only
10	S. Higuera/Suburban	Restripe WB approach to provide left-turn lane and shared left/right-turn lane
11	Buckley Road Extension	Extend Buckley Road west to new signalized intersection with S. Higuera

Figure 3.1-7 shows planned/approved development projects.

Figure 3.1-8 shows the Near Term Scenario 1 lane geometries and traffic controls at the study intersections.

Figure 3.1-9 shows the Near Term Scenario 1 peak hour traffic volumes at the study intersections.

3.1.8.1 Near Term Scenario 1 Conditions MMLOS Analysis

Table 3.1-21 through **Table 3.1- 24** provides a summary of multimodal a.m. and p.m. peak hour intersection LOS and queuing under Near Term Scenario 1 conditions. Detailed Synchro LOS worksheets are included in **Appendix A**

Table 3.1-21: Near Term Scenario 1 Intersection LOS – Automobile Analysis

ID	Study Intersections	Control	LOS Target	Peak Hour	Near Term Conditions		
					Delay[1]	LOS[2]	V/C[3]
1	Los Osos Valley Road & Foothill Boulevard	Signal	D	AM	33.4	C	
				PM	**55.1**	**E**	**1.02**
2	Los Osos Valley Road & Prefumo Canyon Road	TWSC[4]	D	AM	22.0	C	
				PM	30.2	D	
3	Los Osos Valley Road & Laguna Lane	Signal	D	AM	14.1	B	
				PM	8.9	A	
4	Los Osos Valley Road & Oceanaire Drive	TWSC[4]	D	AM	**137.4**	**F**	**1.12**
				PM	**108.4**	**F**	**0.97**
5	Los Osos Valley Road & Royal Way	Signal	D	AM	42.0	D	
				PM	19.3	B	
6	Los Osos Valley Road & Madonna Road	Signal	D	AM	39.4	D	
				PM	44.4	D	
7	Los Osos Valley Road & Froom Ranch Way	Signal	D	AM	21.9	C	
				PM	38.1	D	
8	Los Osos Valley Road & Auto Park Way	TWSC[4]	D	AM	7.0	A	
				PM	4.7	A	
9	Los Osos Valley Road & Calle Joaquin	Signal	D	AM	6.0	A	
				PM	12.6	B	
10	Los Osos Valley Road & US 101 SB Ramps	Signal	C	AM	12.6	B	
				PM	12.7	B	
11	Los Osos Valley Road & US 101 NB Ramps	Signal	C	AM	27.2	C	
				PM	31.1	C	
12	Los Osos Valley Road & S. Higuera Street	Signal	D	AM	18.2	B	
				PM	21.3	C	
13	S. Higuera Street & Vachelle Lane	TWSC[4]	D	AM	22.2	C	
				PM	15.7	C	
14	S. Higuera Street & Suburban Road[5]	Signal	D	AM	7.8	A	
				PM	14.2	B	
15	S. Higuera Street & Tank Farm Road	Signal	D	AM	29.1	C	
				PM	47.1	D	
16	S. Higuera Street & Prado Road	Signal	D	AM	41.4	D	
				PM	54.5	D	
17	Prado Road/US 101 NB Ramps & Elks Lane	Roundabout	C	AM	7.8	A	
				PM	9.0	A	
18	Madonna Road & Oceanaire Drive[5]	Signal	D	AM	45.4	D	
				PM	35.3	D	
19	Madonna Road & Dalidio Drive	Signal	D	AM	34.5	C	
				PM	46.8	D	

ID	Study Intersections	Control	LOS Target	Peak Hour	Near Term Conditions		
					Delay[1]	LOS[2]	V/C[3]
20	Madonna Road & US 101 SB Ramps/Madonna Inn	Signal	C	AM	26.6	C	
				PM	23.9	C	
21	Madonna Road & US 101 NB Ramps	Signal	C	AM	16.6	B	
				PM	33.8	C	
22	Dalidio Drive & Froom	Roundabout	D	AM	6.9	A	
				PM	10.9	B	

Notes:
[1]Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized, all-way stop controlled intersections and roundabouts. Total control delay for the worst movement is presented for side-street stop controlled intersections.
[2]LOS – Levels of Service
[3] Volume-to-capacity ratio reported for worst movement only.
[4]TWSC – Two-way-stop controlled intersection
[5]HCM 6th Methodology does not support intersections with more than four approaches. Hence HCM 2000 Methodology used for intersection 14 and 18
Bold indicates unacceptable operations.
Delay and LOS results for intersection 23 and 24 are excluded from Near Term Conditions Scenario 1 analysis.

As shown in **Table 3.1-21**, under the Near Term Scenario 1 conditions evaluated in the traffic study, the following four intersections are projected to exceed the City's minimum automobile LOS threshold:

- Los Osos Valley Road and Foothill Boulevard, during p.m. peak hour
- Los Osos Valley Road and Oceanaire Drive, during a.m. and p.m. peak hours

Table 3.1-22: Near Term Scenario 1 Intersection LOS – Pedestrian Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	C	1.75	B	1.75	B
		WB	C	2.50	C	2.44	B
		NB	C	2.76	C	2.82	C
		SB	C	2.82	C	2.97	C
2	Los Osos Valley Road & Prefumo Canyon Road[1]	EB	C	n/a			
		WB	C				
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	**>5.0**	**F**	**>5.0**	**F**
3	Los Osos Valley Road & Laguna Lane	EB	C	n/a			
		WB	C	2.40	B	2.22	B
		NB	C	2.87	C	2.86	C
		SB	C	2.93	C	3.08	C
4	Los Osos Valley Road & Oceanaire Drive[1]	EB	C	n/a			
		WB	C				
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	**>5.0**	**F**	**>5.0**	**F**
5	Los Osos Valley Road & Royal Way	EB	C	2.02	B	2.02	B
		WB	C	2.00	B	1.99	B
		NB	C	3.16	C	3.22	C
		SB	C	3.14	C	3.19	C
6	Los Osos Valley Road & Madonna Road	EB	C	2.15	B	2.15	B
		WB	C	3.06	C	3.05	C
		NB	C	2.99	C	3.17	C
		SB	C	3.42	C	3.48	C
7	Los Osos Valley Road & Froom Ranch Way	EB	C	2.67	C	2.79	C
		WB	C	2.60	C	2.65	C
		NB	C	3.10	C	3.30	C
		SB	C	3.09	C	3.30	C
8	Los Osos Valley Road & Auto Park Way	EB	C	n/a			
		WB	C	2.02	B	2.01	B
		NB	C	2.92	C	3.29	C
		SB	C	2.91	C	3.23	C
9	Los Osos Valley Road & Calle Joaquin	EB	C	2.49	B	2.49	B
		WB	C	2.10	B	2.12	B
		NB	C	3.09	C	3.37	C
		SB	C	2.96	C	3.23	C
10	Los Osos Valley Road & US 101 SB Ramps	EB	C	1.94	B	2.27	B
		WB	C	2.26	B	2.20	B
		NB	C	2.90	C	3.06	C
		SB	C	2.96	C	3.26	C
11	Los Osos Valley Road & US 101 NB Ramps	EB	C	2.48	B	2.61	C
		WB	C	1.43	A	1.43	A

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
		NB	C	2.80	C	2.86	C
		SB	C	2.89	C	3.04	C
12	Los Osos Valley Road & S. Higuera Street	EB	C	2.86	C	2.85	C
		WB	C	n/a			
		NB	C	2.44	B	2.41	B
		SB	C	2.91	C	2.98	C
13	S. Higuera Street & Vachelle Lane[1]	EB	C	n/a			
		WB	C				
		NB	C				
		SB	C				
14	S. Higuera Street & Suburban Road	EB	C	n/a			
		WB	C	2.22	B	2.30	B
		NB	C	3.06	C	3.27	C
		SB	C	2.82	C	3.01	C
15	S. Higuera Street & Tank Farm Road	EB	C	2.04	B	2.05	B
		WB	C	3.01	C	3.16	C
		NB	C	3.41	C	**3.64**	**D**
		SB	C	2.76	C	3.07	C
16	S. Higuera Street & Prado Road	EB	C	2.74	C	2.91	C
		WB	C	2.48	B	2.54	C
		NB	C	2.89	C	3.18	C
		SB	C	2.94	C	3.07	C
17	Prado Road/US 101 NB Ramps	EB	C	n/a			
		WB	C				
		NB	C				
		SB	C				
18	Madonna Road & Oceanaire Drive	EB	C	2.78	C	2.95	C
		WB	C	3.30	C	3.45	C
		NB	C	2.02	B	2.02	B
		SB	C	2.05	B	1.98	B
		SE	C	1.82	B	1.86	B
		NE	C	1.78	B	1.78	B
19	Madonna Road & Dalidio Drive	EB	C	3.18	C	3.29	C
		WB	C	3.13	C	3.24	C
		NB	C	2.80	C	2.95	C
		SB	C	1.99	B	2.01	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	C	2.90	C	3.04	C
		WB	C	2.91	C	2.99	C
		NB	C	2.73	C	2.80	C
		SB	C	2.17	B	2.19	B
21	Madonna Road & US 101 NB Ramps	EB	C	2.97	C	2.92	C
		WB	C	2.82	C	2.76	C
		NB	C	2.01	B	1.98	B
		SB	C	2.10	B	2.16	B

Notes:
[1]For unsignalized AWSC intersections, pedestrian delay is reported as pedestrian LOS methodology is not supported for crosswalks that intersect stop-sign controlled approaches. For unsignalized TWSC intersections, pedestrian LOS methodology is limited to the uncontrolled crossings.

As shown in **Table 3.1-22**, under the Near Term Scenario 1 conditions evaluated in the traffic study, the following intersections are projected to exceed the City's minimum pedestrian LOS threshold:

- Los Osos Valley Road and Perfumo canyon Road in northbound and southbound direction during both the a.m. and the p.m. peak hours
- Los Osos Valley Road and Oceanaire Drive in the northbound direction during both the a.m. and the p.m. peak hours
- S Higuera Street and Tank Farm Road in the northbound direction during p.m. peak hour

Table 3.1-23: Near Term Scenario 1 Intersection LOS – Bicycle Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	D	2.71	C	2.71	C
		WB	D	3.34	C	4.05	D
		NB	D	2.93	C	3.22	C
		SB	D	2.73	C	2.00	B
3	Los Osos Valley Road & Laguna Lane	EB	D	n/a			
		WB	D	3.26	C	2.82	C
		NB	D	1.99	B	2.36	B
		SB	D	1.54	B	1.45	A
5	Los Osos Valley Road & Royal Way	EB	D	3.17	C	3.00	C
		WB	D	3.30	C	2.96	C
		NB	D	2.74	C	3.13	C
		SB	D	2.32	B	2.05	B
6	Los Osos Valley Road & Madonna Road	EB	D	3.44	C	3.24	C
		WB	D	3.71	D	4.39	D
		NB	D	1.69	B	2.08	B
		SB	D	2.97	C	2.62	C
7	Los Osos Valley Road & Froom Ranch Way	EB	D	3.60	D	**4.55**	**E**
		WB	D	2.53	C	2.82	C
		NB	D	1.86	B	2.34	B
		SB	D	1.69	B	1.96	B
8	Los Osos Valley Road & Auto Park Way	EB	D	n/a			
		WB	D	2.62	C	2.79	C
		NB	D	3.13	C	3.47	C
		SB	D	3.21	C	3.72	D
9	Los Osos Valley Road & Calle Joaquin	EB	D	3.10	C	3.07	C
		WB	D	3.17	C	3.32	C
		NB	D	1.62	B	1.98	B
		SB	D	1.71	B	0.76	A
10	Los Osos Valley Road & US 101 SB Ramps	EB	D	n/a			
		WB	D	2.77	C	2.55	C
		NB	D	1.69	B	2.16	B
		SB	D	1.52	B	1.88	B
11	Los Osos Valley Road & US 101 NB Ramps	EB	D	3.91	D	3.94	D
		WB	D	1.39	A	1.39	A
		NB	D	1.74	B	2.14	B
		SB	D	2.20	B	2.23	B
12	Los Osos Valley Road & S. Higuera Street	EB	D	2.04	B	1.75	B
		WB	D	n/a			
		NB	D	2.35	B	1.88	B
		SB	D	2.44	B	3.57	D

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
14	S. Higuera Street & Suburban Road	EB	D	n/a			
		WB	D	1.17	A	1.57	B
		NB	D	2.43	B	2.16	B
		SB	D	2.07	B	2.67	C
15	S. Higuera Street & Tank Farm Road	EB	D	2.73	C	2.72	C
		WB	D	3.88	D	**5.16**	**E**
		NB	D	2.29	B	2.41	B
		SB	D	1.87	B	2.36	B
16	S. Higuera Street & Prado Road	EB	D	2.72	C	3.15	C
		WB	D	2.02	B	2.88	C
		NB	D	1.75	B	2.45	B
		SB	D	2.46	B	2.27	B
18	Madonna Road & Oceanaire Drive	EB	D	2.78	C	2.85	C
		WB	D	1.55	B	2.24	B
		NB	D	2.87	C	2.86	C
		SB	D	2.74	C	2.32	B
		SE	D	2.62	C	2.62	C
		NE	D	2.20	B	2.20	B
19	Madonna Road & Dalidio Drive	EB	D	2.35	B	2.35	B
		WB	D	1.76	B	1.95	B
		NB	D	2.62	C	3.95	D
		SB	D	1.59	B	1.94	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	D	1.84	B	1.91	B
		WB	D	1.55	B	1.82	B
		NB	D	3.13	C	3.48	C
		SB	D	2.94	C	2.97	C
21	Madonna Road & US 101 NB Ramps	EB	D	2.74	C	2.21	B
		WB	D	1.63	B	2.04	B
		NB	D	2.31	B	2.19	B
		SB	D	n/a			

Notes:
Bicycle LOS summary excludes unsignalized intersections and locations where no bicycle facilities are provided as HCM 6th Bike LOS Methodology do not model segments bounded by unsignalized intersections.

As shown in **Table 3.1-23**, under the Near Term Scenario 1 conditions without the Project, the following intersections are projected to exceed the City's minimum bicycle LOS threshold:

- Los Osos Valley Road and Froom Ranch Way (intersection #7) in the eastbound direction during p.m. peak hour
- South Higuera Street and Tank Farm Road (intersection #15) in the westbound direction during p.m. peak hour

Table 3.1-24: Near Term Scenario 1 – 95th Percentile Queuing Analysis

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Conditions - Scenario 1
1	Los Osos Valley Road/Foothill Boulevard	WBR	180	AM	0
				PM	0
		NBL	120	AM	0
				PM	15
		NBR	370	AM	30
				PM	120
		SBL	490	AM	**#590**
				PM	#325
3	Los Osos Valley Road/Laguna Lane	WBL	Trap Lane	AM	90
				PM	45
		WBR	Trap Lane	AM	0
				PM	15
		NBR	80	AM	10
				PM	40
		SBL	120	AM	45
				PM	25
5	Los Osos Valley Road/Royal Way	EBR	70	AM	15
				PM	30
		WBR	70	AM	0
				PM	0
		NBL	110	AM	30
				PM	70
		SBL	160	AM	15
				PM	15
		SBR	50	AM	0
				PM	0
6	Los Osos Valley Road/Madonna Road	EBL	230	AM	130
				PM	80
		WBL	Trap Lane	AM	80
				PM	155
		WBR	170	AM	50
				PM	85
		NBL	200	AM	83
				PM	#165
		NBR	175	AM	75
				PM	35
		SBL	350	AM	**360**
				PM	#240
7	Los Osos Valley Road/Froom Ranch Way	EBL	250	AM	65
				PM	#215
		EBR	250	AM	0

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Conditions - Scenario 1
				PM	65
		WBL	295	AM	75
				PM	130
		WBR	50	AM	0
				PM	**65**
		NBL	300	AM	120
				PM	245
		SBL	160	AM	#90
				PM	#140
8	Los Osos Valley Road/Auto Parkway (Project Driveway)	EBL	100	AM	-
				PM	-
		EBR	100	AM	-
				PM	-
		WBL	Trap Lane	AM	35
				PM	50
		WBR	175	AM	20
				PM	45
		NBL	200	AM	-
				PM	-
		SBL	100	AM	45
				PM	30
		SBR	100	AM	-
				PM	-
9	Los Osos Valley Road/Calle Joaquin	EBL	260	AM	30
				PM	40
		EBR	260	AM	15
				PM	20
		WBL	100	AM	55
				PM	**130**
		NBL	130	AM	10
				PM	m15
		NBR	130	AM	25
				PM	m10
		SBL	120	AM	30
				PM	20
		SBR	120	AM	5
				PM	10
10	Los Osos Valley Road/US 101 SB Ramps	WBR	190	AM	125
				PM	**215**
		NBL	220	AM	m40
				PM	m85
		SBR	120	AM	45

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Conditions - Scenario 1
				PM	**#275**
11	Los Osos Valley Road/US 101 NB Ramps	EBL	610	AM	#380
				PM	#425
		NBL	400	AM	85
				PM	185
		SBR	133	AM	m0
				PM	0
12	Los Osos Valley Road/S. Higuera Street	EBL	Trap Lane	AM	#440
				PM	#420
		EBR	100	AM	45
				PM	45
		NBL	200	AM	55
				PM	30
		SBR	Trap Lane	AM	115
				PM	300
14	S. Higuera Street/Suburban Road	WBL	Trap Lane	AM	70
				PM	185
		SBL	170	AM	75
				PM	#135
15	S. Higuera Street/Tank Farm Road	EBR	Trap Lane	AM	0
				PM	0
		WBL	Trap Lane	AM	240
				PM	530
		WBR	250	AM	55
				PM	**310**
		NBL	140	AM	55
				PM	60
		NBR	100	AM	**185**
				PM	**120**
		SBL	165	AM	**#590**
				PM	**#870**
16	S. Higuera Street/Prado Road	EBL	300	AM	**#300**
				PM	**#440**
		EBR	300	AM	20
				PM	**325**
		WBL	105	AM	**120**
				PM	**235**
		WBR	410	AM	0
				PM	65
		NBL	300	AM	#140
				PM	**#295**
		SBL	200	AM	**#450**

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Conditions - Scenario 1
				PM	170
18	Madonna Road/Oceanaire Drive	EBL	115	AM	40
				PM	#50
		WBL	115	AM	**#130**
				PM	**#290**
		WBR	100	AM	**220**
				PM	**#520**
		NBR	50	AM	0
				PM	0
19	Madonna Road/Dalidio Drive	EBL	145	AM	50
				PM	70
		EBR	100	AM	**#600**
				PM	**#480**
		WBL	350	AM	#280
				PM	#290
		NBL	150	AM	**175**
				PM	**#510**
		NBR	150	AM	5
				PM	150
		SBR	50	AM	0
				PM	0
20	Madonna Road/US 101 SB Ramps/Madonna Inn	EBL	100	AM	#55
				PM	60
		WBL	260	AM	160
				PM	m#180
		NBL	Trap Lane	AM	170
				PM	#330
		NBR	275	AM	20
				PM	40
		SBL	Trap Lane	AM	20
				PM	20
		SBR	100	AM	0
				PM	0
21	Madonna Road/US 101 NB Ramps	EBL	435	AM	150
				PM	#320
		NBL	185	AM	90
				PM	110

Notes:
Queue length rounded to nearest five feet. Queuing analysis is reported for signalized intersections only.
Bold: 95th percentile volume exceeds capacity.
m queue is metered by upstream intersection.
95th percentile queue exceeds capacity
Trap - denotes design where the thru-lane terminates in a turn-lane.

Westbound thru-lane (WBL); Westbound right-turn lane (WBR); Eastbound thru-lane (EBL); Northbound thru-lane (NBL); Northbound right-turn lane (NBR); Northbound trap (NBT); Southbound thru-lane (SBL); Southbound trap (SBT); Southbound right-turn lane (SBR).

As shown in **Table 3.1-24**, following three intersections have vehicle queues that are projected to exceed lane capacity during a.m. or p.m. peak hours:

- Los Osos Valley Road and Foothill Boulevard (SBL during a.m. peak hour)
- Los Osos Valley Road and Madonna Road (SBL during p.m. peak hour)
- Los Osos Valley Road and Froom Ranch Way (WBR during p.m. peak hour)
- Los Osos Valley Road and Calle Joaquin (WBL during p.m. peak hour)
- Los Osos Valley Road and US 101 SB Ramps (SBR and WBR during p.m. peak hour)
- S Higuera Street and Tank Farm Road (WBR during p.m. peak hour and NBR and SBL during both the a.m. and p.m. peak hours)
- S Higuera Street and Prado Road (EBL and WBL during both the a.m. and p.m. hours, EBR and NBL during p.m. peak hours and SBL during a.m. peak hours)
- Madonna Road and Oceanaire Drive (WBL and WBR during both the a.m. and the p.m. hours)
- Madonna Road and Dalidio Drive (EBR and NBL during both the a.m. and the p.m. peak hours)

Table 3.1-25 through **Table 3.1-28** provides a summary of the multimodal a.m. and p.m. peak hour segment LOS under Near Term Scenario 1 conditions.

As shown in **Table 3.1-25**, under Near Term Scenario 1 conditions, the following roadway segments are projected to exceed City's minimum automobile LOS threshold:

- Los Osos Valley Road from Oceanaire Drive to Madonna Road operates at LOS F during both a.m. and p.m. peak hours in the southbound direction
- Los Osos Valley Road from Madonna Road to Froom Ranch Way operates at LOS E in the northbound direction during p.m. peak hour
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS E during a.m. and the p.m. peak hour in northbound direction

As shown in **Table 3.1-26**, under Near Term Scenario 1 Conditions, following roadway segments are projected to exceed City's minimum pedestrian LOS threshold:

- Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive operates at LOS D during a.m. and p.m. peak hour in the southbound direction and operates at LOS D during p.m. peak hour in northbound direction.
- Los Osos Valley Road from Madonna Road to Froom Ranch Way operates at LOS F during a.m. peak hour in the northbound direction and operates at LOS D during p.m. peak hour in the northbound direction.

- Los Osos Valley Road from Froom Ranch Way to Calle Joaquin operates at LOS D during p.m. peak hour in the southbound direction.
- Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps operates at LOS D in southbound direction during a.m. peak hour and operates at LOS D in northbound direction during p.m. peak hour.
- Los Osos Valley Road from US 101 NB Ramps to South Higuera Street operates at LOS D during a.m. and p.m. peak hours in the southbound direction and during a.m. peak hour in northbound direction.
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS D during p.m. peak hour in the southbound direction.
- South Higuera Street from Tank Farm Road to Prado Road operates at LOS F during a.m. and p.m. peak hours in the southbound direction.
- Madonna Road from Los Osos Valley Road to Dalidio Drive operates at LOS F in eastbound direction during a.m. peak hour. In the westbound direction the segment is projected to operate at LOS F during a.m. peak hour and at LOS D during p.m. peak hour.

Table 3.1-29 and **Table 3.1-30** provides a summary of the Near Term Scenario 1 conditions for US 101 mainline, ramp junction and weaving sections operations during the a.m. and p.m. peak hour conditions. As shown in **Table 3.1-29**, under Near Term Scenario 1 Conditions, the following freeway segments are projected to exceed Caltrans minimum LOS thresholds:

- US 101 northbound, Los Osos Valley Road Off Ramp operates at LOS D during a.m. peak hour
- US 101 southbound, north of Madonna Road operates at LOS D during p.m. peak hour
- US 101southbound, Madonna Road On Ramp operates at LOS D during p.m. peak hour
- US 101 southbound, north of Prado Road operates at LOS D during p.m. peak hour
- US 101 southbound, Los Osos Valley Road On Ramp operates at LOS D during a.m. peak hour
- US 101 southbound, north of S Higuera Street operates at LOS E during p.m. peak hour

Detailed roadway segment analysis worksheets are included in **Appendix C**, detailed freeway analysis worksheets for mainline, merge and diverge worksheets are attached in **Appendix D**, and detailed Leisch method analysis worksheets for weave segments are attached in **Appendix E**.

Table 3.1-25: Near Term Scenario 1 Segment LOS: Automobile Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	31.82	45.46	70.00%	B	33.37	45.46	73.4%	B
		NB	D	28.92	45.45	63.63%	C	27.74	45.45	61.0%	C
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	**12.39**	**42.64**	**29.06%**	**F**	**9.78**	**42.64**	**22.9%**	**F**
		NB	D	24.02	45.68	52.58%	C	22.25	45.68	48.7%	D
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	26.95	44.82	60.13%	C	20.47	44.83	45.7%	D
		NB	D	18.66	44.83	41.62%	D	**16.94**	**44.82**	**37.8%**	**E**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	28.68	44.80	64.02%	C	33.88	44.80	75.6%	B
		NB	D	26.45	45.22	58.49%	C	27.52	45.22	60.9%	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	22.22	45.33	49.02%	D	18.25	45.33	40.3%	D
		NB	D	19.88	40.66	48.89%	D	24.88	45.36	54.9%	C
6	Los Osos Valley Road from US 101 NB Ramps to South Higuera Street	SB	D	20.91	40.64	51.45%	C	22.20	40.78	55.7%	C
		NB	D	26.78	41.19	65.02%	C	31.38	45.77	64.5%	B
7	South Higuera Street from City Limit south to US 101/Clover Ridge Lane	SB	D	44.55	45.72	97.44%	A	43.74	45.72	95.7%	A
		NB	D	40.71	45.73	89.02%	A	42.10	45.73	92.1%	A
8	South Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	23.72	45.33	52.33%	C	19.83	45.34	43.7%	D
		NB	D	**17.91**	**45.68**	**39.21%**	**E**	**13.95**	**45.69**	**30.5%**	**E**
9	South Higuera Street from Tank Farm Road to Prado Road	SB	D	31.21	45.21	69.03%	B	24.57	45.23	54.3%	C
		NB	D	26.11	45.21	57.75%	C	23.03	45.24	50.9%	C

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
10	Tank Farm Road from South Higuera Street to Broad Street	EB	D	34.08	43.15	78.98%	B	34.17	43.15	79.2%	B
		WB	D	33.87	42.40	79.88%	B	33.78	42.38	79.7%	B
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	21.11	38.92	54.24%	C	22.09	39.14	56.4%	C
		WB	D	21.02	38.84	54.12%	C	20.74	39.15	53.0%	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	37.43	41.09	91.09%	A	33.30	38.74	79.5%	B
		WB	D	31.54	41.08	76.78%	B	27.84	41.08	67.8%	B

Notes:
Bold indicates deficient Level of Service.

Table 3.1-26: Near Term Scenario 1 Segment LOS: Pedestrian Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	C	**3.67**	**D**	**3.54**	**D**
		NB	C	3.29	C	**4.12**	**D**
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	C	3.35	C	3.25	C
		NB	C	2.83	C	3.19	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	C	3.26	C	3.38	C
		NB	C	**3.20**	**F**	**3.61**	**D**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	C	3.32	C	**3.68**	**D**
		NB	C	3.33	C	3.37	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	C	**3.59**	**D**	3.46	C
		NB	C	3.29	C	**3.67**	**D**
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	C	**4.24**	**D**	**3.72**	**D**
		NB	C	**3.73**	**D**	3.36	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	C	3.32	C	**3.88**	**D**
		NB	C	2.88	C	3.02	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	C	**3.52**	**F**	**4.39**	**F**
		NB	C	2.62	C	3.31	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	C	**4.48**	**F**	3.03	C
		WB	C	**3.89**	**F**	**3.93**	**D**
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	C	2.2	C	3.23	C
		WB	C	3.03	C	3.26	C

Notes:
Bold indicates deficient Level of Service.

Table 3.1-27: Near Term Scenario 1 Conditions Segment Level of Service: Bicycle Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.04	B	1.99	A
		NB	D	1.61	A	1.89	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.32	C	2.26	C
		NB	D	1.57	A	1.80	A
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	2.60	C	2.62	C
		NB	D	1.48	A	1.79	A
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	2.44	C	2.63	C
		NB	D	1.93	A	2.00	B
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	2.79	C	2.78	C
		NB	D	2.50	C	2.89	C
6	Los Osos Valley Road from US 101 NB Ramps to South Higuera Street	SB	D	2.39	C	2.29	C
		NB	D	1.85	A	2.07	B
7	South Higuera Street from City Limit south to US 101/Clover Ridge Lane	SB	D	1.55	A	1.78	A
		NB	D	1.60	A	1.48	A
8	South Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	2.58	C	2.92	C
		NB	D	2.91	C	2.93	C
9	South Higuera Street from Tank Farm Road to Prado Road	SB	D	2.49	C	2.75	C
		NB	D	2.09	B	2.41	C
10	Tank Farm Road from South Higuera Street to Broad Street	EB	D	2.74	C	2.71	C
		WB	D	2.90	C	2.99	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.14	C	2.97	C

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
		WB	D	2.25	C	2.47	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	1.22	A	0.85	A
		WB	D	1.12	A	1.25	A

Notes:
Bold indicates deficient Level of Service.

Table 3.1-28: Near Term Scenario 1 Segment LOS: Transit Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.91	C	2.88	C
		NB	D	1.75	A	1.96	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.49	C	2.61	C
		NB	D	2.78	C	2.90	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	3.53	D	3.72	D
		NB	D	2.06	B	2.15	B
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	3.22	C	3.14	C
		NB	D	3.38	C	3.38	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	3.93	D	3.46	C
		NB	D	3.66	D	3.47	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	4.15	D	3.96	D
		NB	D	3.26	C	3.06	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	3.59	D	4.05	D
		NB	D	3.32	C	4.22	D
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.38	C	3.23	C
		WB	D	3.36	C	3.37	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	1.02	A	1.29	A
		WB	D	0.53	A	0.60	A

Notes:
Bold indicates deficient Level of Service.

Table 3.1-29: Near Term Scenario 1 Conditions Segment LOS: Freeway Mainline, Ramps & Weaving Sections Analysis

#	Interchange Location	Target LOS	Segment Type	Lanes	AM Peal Hour			PM Peal Hour		
					Volume	Density (pc/mi/ln)	LOS	Volume	Density (pc/mi/ln)	LOS
US 101 Northbound										
1	US 101 NB, south of S Higuera Street	C	Freeway	2	2,530	21.5	C	2,571	21.8	C
2	US 101 NB, south of Los Osos Valley Road	C	Freeway	2	2,817	24.0	C	2,156	18.3	C
3	US 101 NB Los Osos Valley Road Off Ramp	C	Diverge	1	675	**29.1**	**D**	702	22.3	C
4	US 101 NB Los Osos Valley Road On Ramp	C	Merge	1	146	28.5	C	490	25.2	C
5	US 101 NB, north of Prado Road	C	Freeway	2	2,502	21.2	C	2,408	20.4	C
6	US 101 NB Prado Road Off Ramp	C	Diverge	1	456	25.6	C	227	24.5	C
7	US 101 NB Prado Road On Ramp	C	Merge	1	367	27.7	C	402	27.0	C
8	US 101 NB, south of Madonna Road	C	Freeway	3	3,079	17.4	B	3,354	19.0	C
9	US 101 NB, Madonna Road Off Ramp	C	Diverge	1	310	19.4	C	268	21.1	C
US 101 Southbound										
10	US 101 SB, north of Madonna Road	C	Freeway	2	2,131	18.1	C	3,168	**27.6**	**D**
11	US 101 SB Madonna Road On Ramp	C	Merge	1	190	22.2	C	278	**34.5**	**D**
12	US 101 SB, north of Prado Road	C	Freeway	2	1,979	16.8	B	3,223	**28.2**	**D**
13	US 101 SB, south of Los Osos Valley Road	C	Freeway	2	1,314	11.2	B	2,394	20.3	C
14	US 101 SB Los Osos Valley Road Off Ramp	C	Diverge	1	608	13.5	B	542	24.6	C
15	US 101 SB Los Osos Valley Road On Ramp	C	Merge	1	392	16.0	B	708	**30.2**	**D**
16	US 101 SB, north of S Higuera Street	C	Freeway	2	2,357	20.0	C	3,811	**36.2**	**E**

Notes:
Bold indicates deficient Level of Service

Table 3.1-30: Near Term Scenario 1 Weaving Segment LOS: Leisch Method

Interchange Location	Target LOS	Segment Type	No. of Lanes	Length	AM Peak		PM Peak	
					Total Volume	LOS	Total Volume	LOS
US 101 Northbound								
Between Los Osos Valley Road and Prado Road	C	Weave	2	4,380	3,454	A	3,128	A
Between Prado Road and Madonna Road	C	Weave	3	2,280	3,602	A	3,887	A
US 101 Southbound								
Between Madonna Road and Los Osos Valley Road	C	Weave	2	5,490	2,935	A	4,138	A

Planned/Approved Development Projects

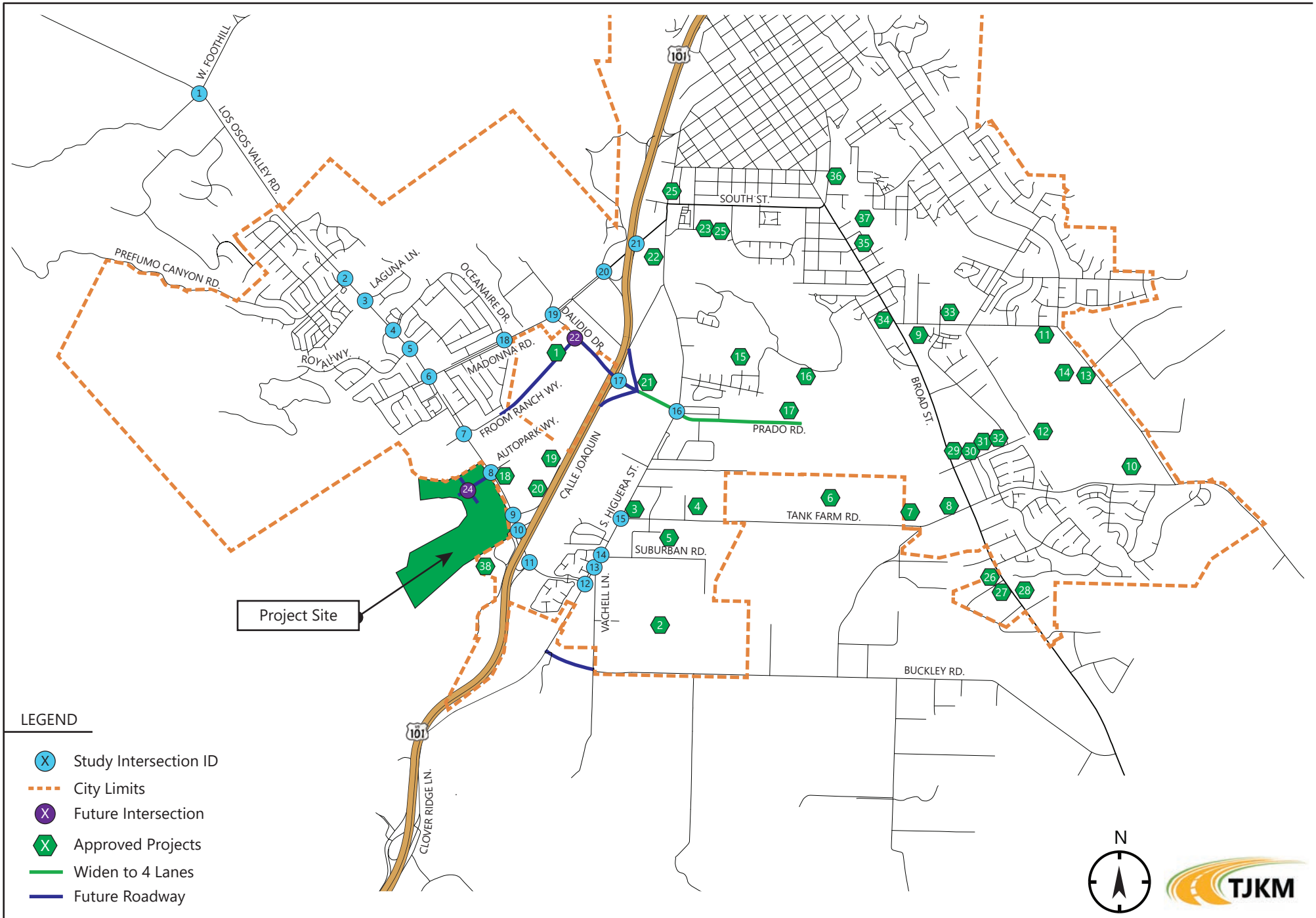


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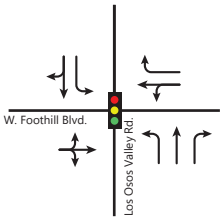
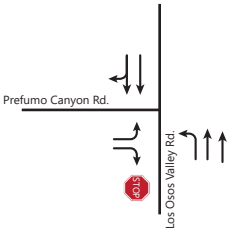
Figure 3.1-7

Near Term (2025) Scenario 1 Lane Geometries and Traffic Controls

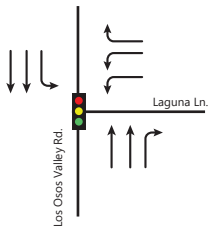
Intersection #1
W. Foothill Blvd. / Los Osos Valley Rd.



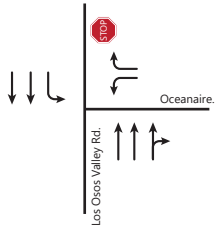
Intersection #2
Los Osos Valley Rd./Prefumo Canyon Rd.



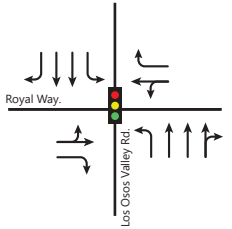
Intersection #3
Los Osos Valley Rd. / Laguna Ln.



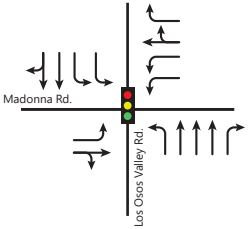
Intersection #4
Los Osos Valley Rd./Oceanaire Dr.



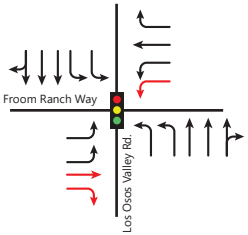
Intersection #5
Los Osos Valley Rd./Royal Way



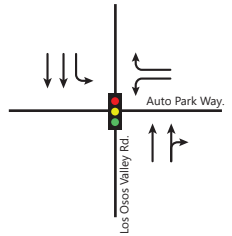
Intersection #6
Los Osos Valley Rd./Madonna Rd.



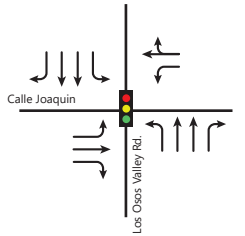
Intersection #7
Los Osos Valley Rd./Froom Ranch Way



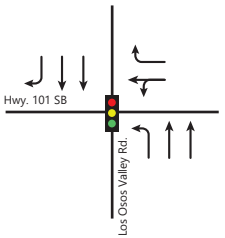
Intersection #8
Los Osos Valley Rd./Auto Park Way



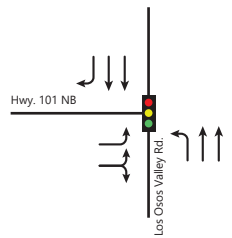
Intersection #9
Los Osos Valley Rd./Calle Joaquin



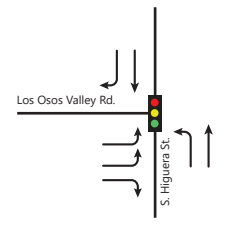
Intersection #10
Los Osos Valley Rd. / Hwy. 101 SB



Intersection #11
Los Osos Valley Rd. / Hwy. 101 NB



Intersection #12
S. Higuera St. / Los Osos Valley Rd.



LEGEND

- Stop Sign
- Traffic Signal
- Roundabout
- Proposed Geometrics
- Future Intersection
- City Limits
- Widen to 4 Lanes
- Future Roadway

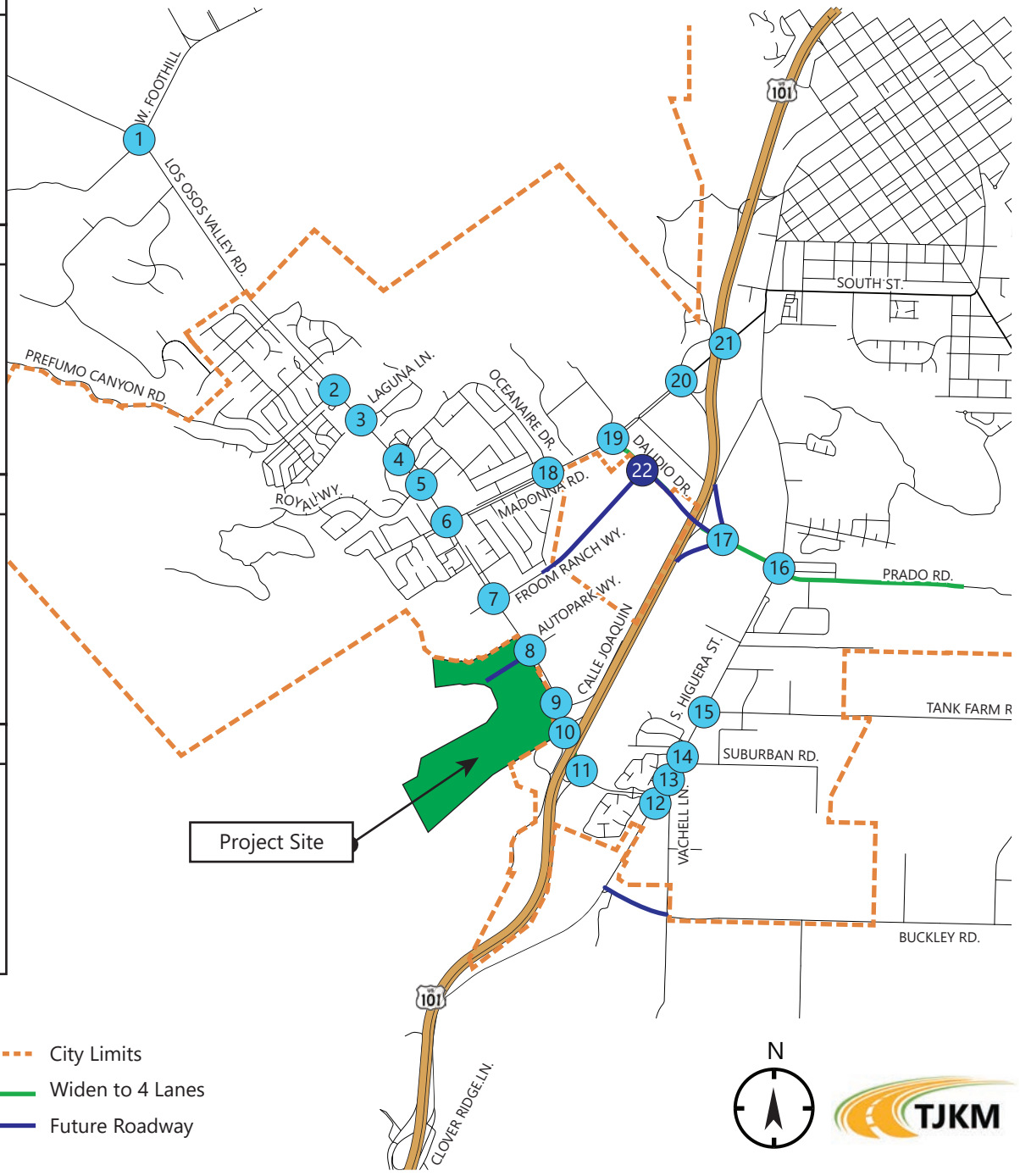


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Figure 3.1-8

Near Term (2025) Scenario 1 Lane Geometries and Traffic Controls

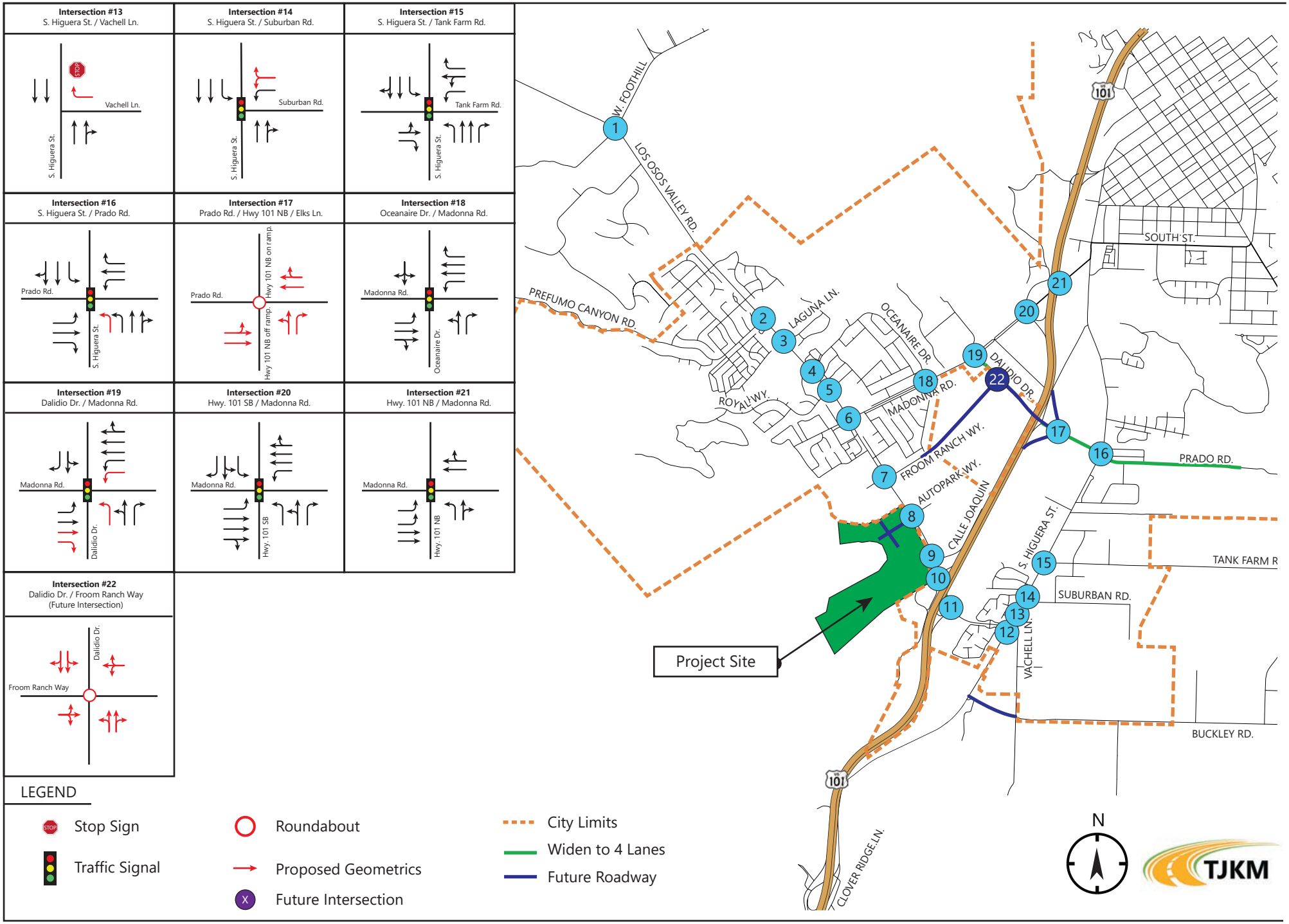

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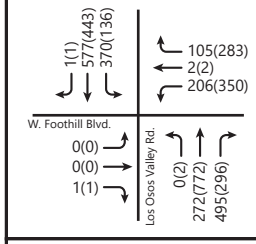
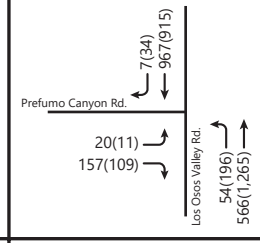
Figure 3.1-8

Near Term (2025) Scenario 1 Turning Movement Volumes

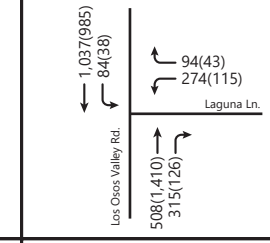
Intersection #1
W. Foothill Blvd. / Los Osos Valley Rd.



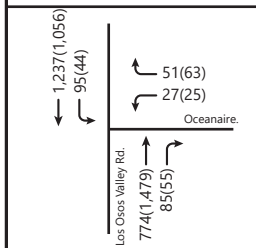
Intersection #2
Los Osos Valley Rd./Prefumo Canyon Rd.



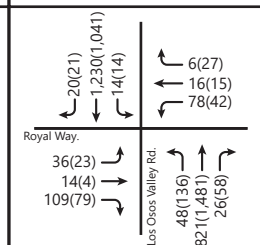
Intersection #3
Los Osos Valley Rd. / Laguna Ln.



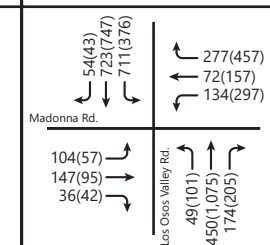
Intersection #4
Los Osos Valley Rd./Oceanaire Dr.



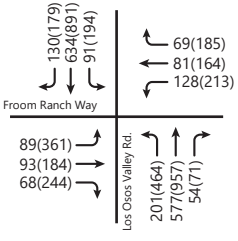
Intersection #5
Los Osos Valley Rd./Royal Way



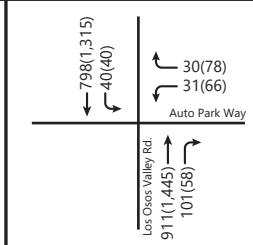
Intersection #6
Los Osos Valley Rd./Madonna Rd.



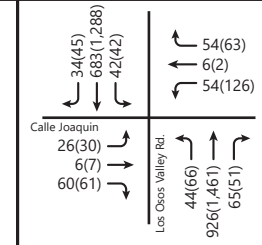
Intersection #7
Los Osos Valley Rd./Froom Ranch Way



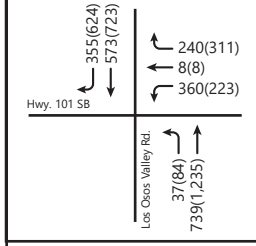
Intersection #8
Los Osos Valley Rd./Auto Park Way



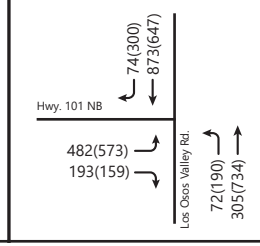
Intersection #9
Los Osos Valley Rd./Calle Joaquin



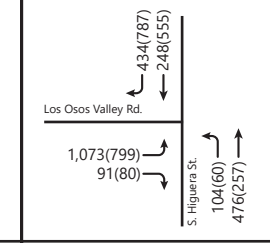
Intersection #10
Los Osos Valley Rd. / Hwy. 101 SB

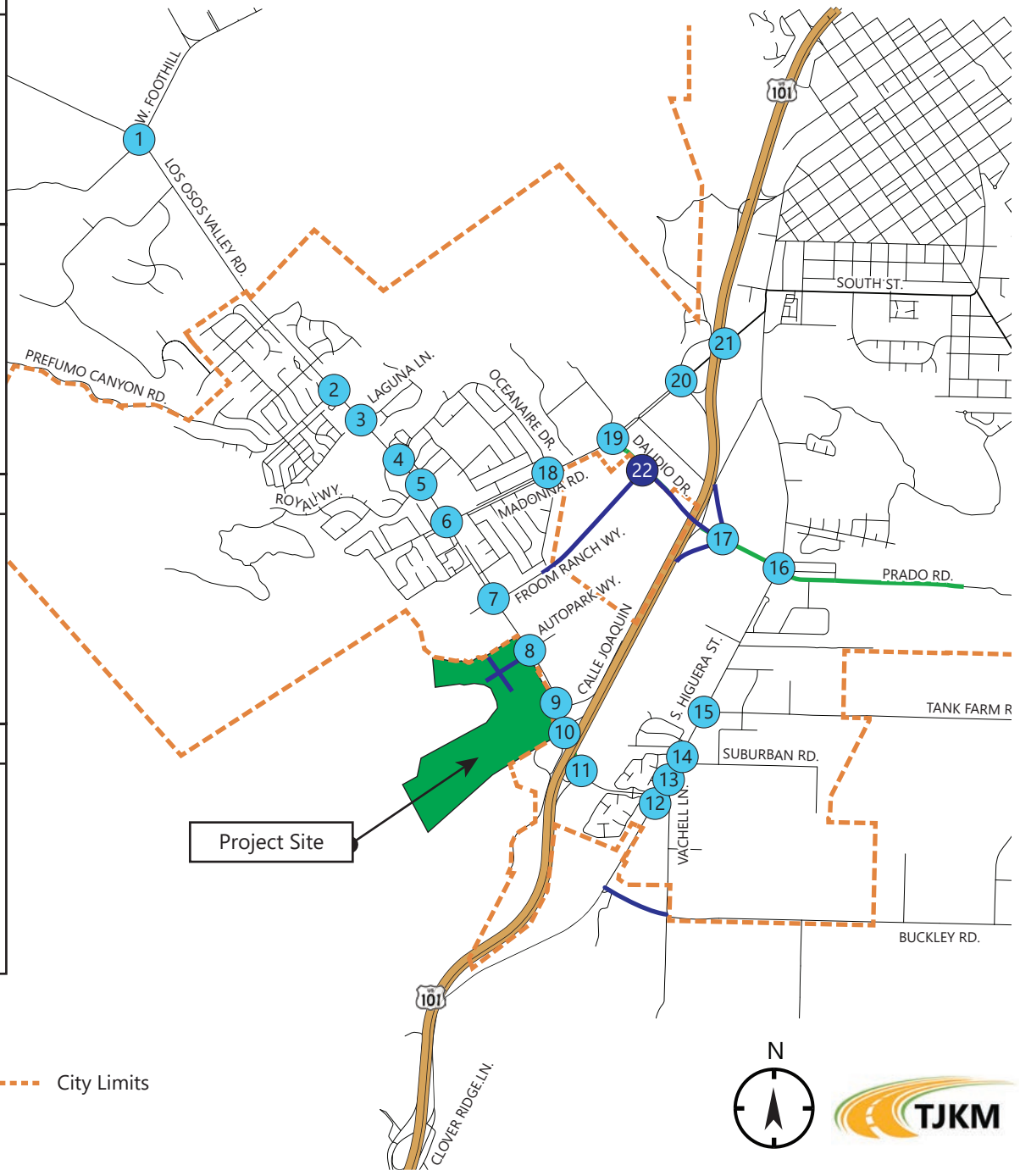


Intersection #11
Los Osos Valley Rd. / Hwy. 101 NB



Intersection #12
S. Higuera St. / Los Osos Valley Rd.





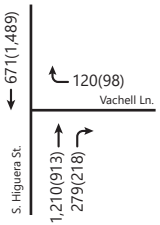
LEGEND

- X — Study Intersection ID
- XX — AM Peak Hour Volumes
- (XX) — PM Peak Hour Volumes
- Widen to 4 Lanes
- Future Roadway
- X — Future Intersection
- City Limits

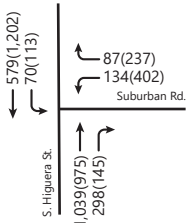
Figure 3.1-9

Near Term (2025) Scenario 1 Turning Movement Volumes

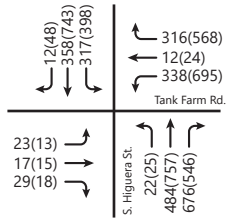
Intersection #13
S. Higuera St. / Vachell Ln.



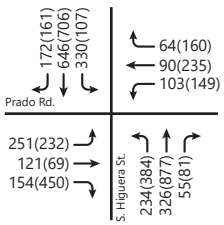
Intersection #14
S. Higuera St. / Suburban Rd.



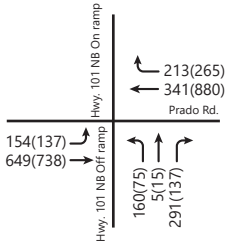
Intersection #15
S. Higuera St. / Tank Farm Rd.



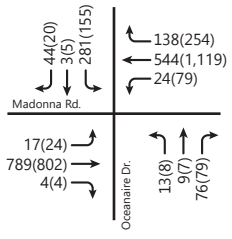
Intersection #16
S. Higuera St. / Prado Rd.



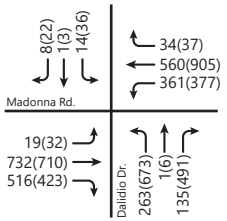
Intersection #17
Prado Rd. / Hwy 101 NB



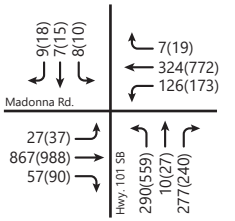
Intersection #18
Oceanaire Dr. / Madonna Rd.



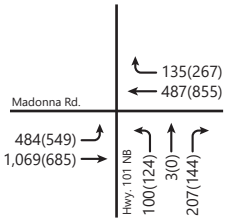
Intersection #19
Dalidio Dr. / Madonna Rd.



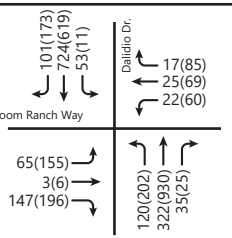
Intersection #20
Hwy. 101 SB / Madonna Rd.

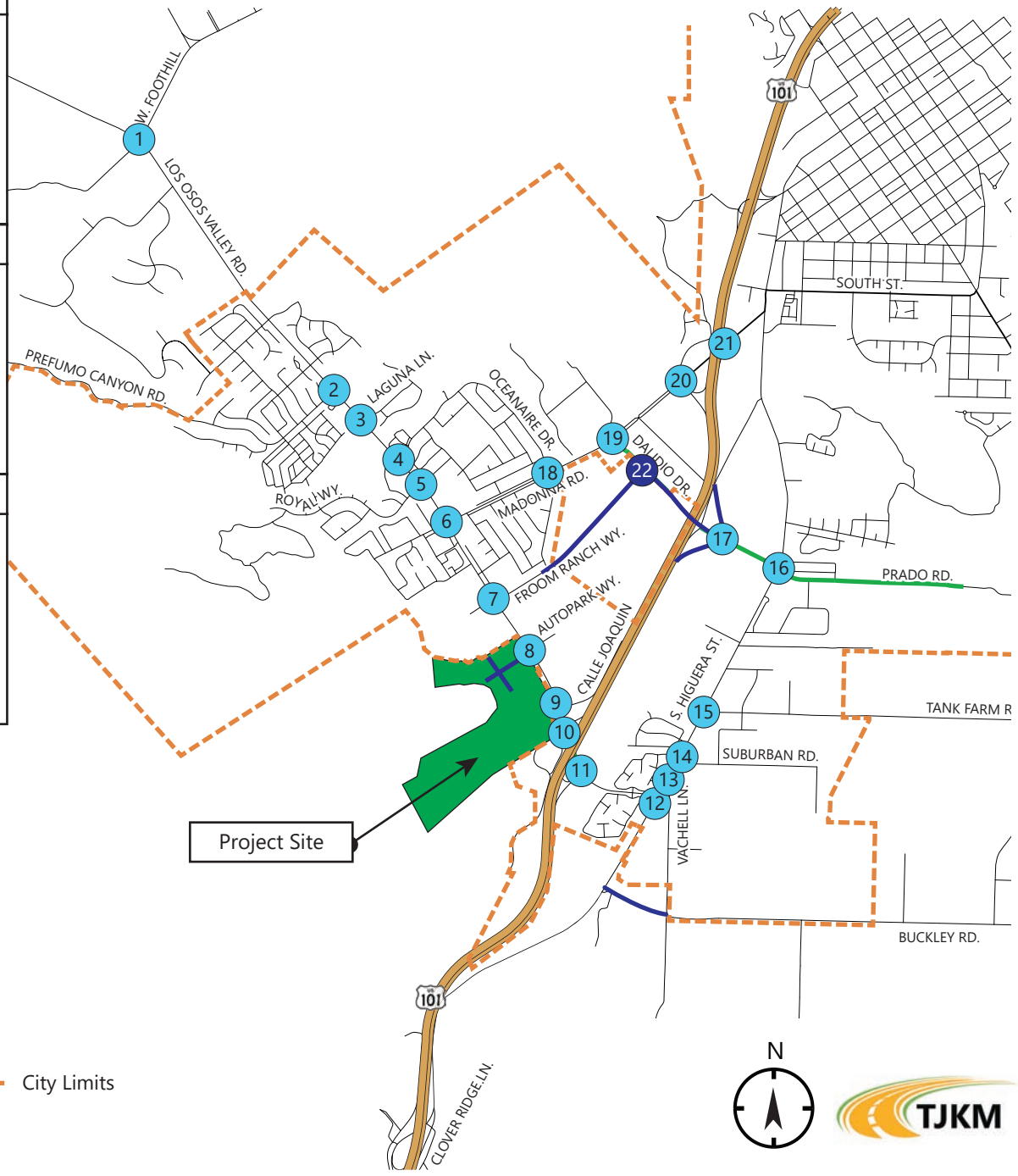


Intersection #21
Hwy. 101 NB / Madonna Rd.



Intersection #22
Dalidio Dr. / Froom Ranch Way
(Future Intersection)





LEGEND

- (X) Study Intersection ID
- XX AM Peak Hour Volumes
- (XX) PM Peak Hour Volumes
- Widen to 4 Lanes
- Future Roadway
- (X) Future Intersection
- City Limits

3.1.8.2 Near Term Scenario 2 Conditions MMLOS Analysis

Figure 3.1-10 shows the Near Term Scenario 2 peak hour traffic volumes at the study intersections. **Table 3.1-31** through **Table 3.1-34** provides a summary of multimodal a.m. and p.m. peak hour intersection LOS and queuing. Detailed Synchro LOS worksheets are included in **Appendix A**

Table 3.1-31: Near Term Scenario 2 Intersection LOS – Automobile Analysis

ID	Study Intersections	Control	LOS Target	Peak Hour	Near Term-Scenario 2		
					Delay[1]	LOS[2]	V/C[3]
1	Los Osos Valley Road & Foothill Boulevard	Signal	D	AM	32.7	C	
				PM	55.0	D	
2	Los Osos Valley Road & Prefumo Canyon Road	TWSC	D	AM	21.9	C	
				PM	29.6	D	
3	Los Osos Valley Road & Laguna Lane	Signal	D	AM	14.1	B	
				PM	8.9	A	
4	Los Osos Valley Road & Oceanaire Drive	TWSC	D	AM	**129.6**	**F**	**1.08**
				PM	**104.0**	**F**	**0.94**
5	Los Osos Valley Road & Royal Way	Signal	D	AM	41.6	D	
				PM	19.3	B	
6	Los Osos Valley Road & Madonna Road	Signal	D	AM	34.6	C	
				PM	46.6	D	
7	Los Osos Valley Road & Froom Ranch Way	Signal	D	AM	20.8	C	
				PM	37.3	D	
8	Los Osos Valley Road & Auto Park Way	Signal	D	AM	6.5	A	
				PM	9.4	A	
9	Los Osos Valley Road & Calle Joaquin	Signal	D	AM	5.9	A	
				PM	9.5	A	
10	Los Osos Valley Road & US 101 SB Ramps	Signal	C	AM	16.3	B	
				PM	21.4	C	
11	Los Osos Valley Road & US 101 NB Ramps	Signal	C	AM	23.8	C	
				PM	29.1	C	
12	Los Osos Valley Road & South Higuera Street	Signal	D	AM	19.4	B	
				PM	34.3	C	
13	South Higuera Street & Vachell Lane	TWSC	D	AM	22.6	C	
				PM	16.1	C	
14	South Higuera Street & Suburban Road[6]	Signal	D	AM	9.2	A	
				PM	14.4	B	
15		Signal	D	AM	29.9	C	

ID	Study Intersections	Control	LOS Target	Peak Hour	Near Term-Scenario 2		
					Delay[1]	LOS[2]	V/C[3]
	South Higuera Street & Tank Farm Road			PM	47.9	D	
16	South Higuera Street & Prado Road	Signal	D	AM	27.5	C	
				PM	43.9	D	
17	Prado Road/US 101 NB Ramps & Elks Lane	AWSC	C	AM	12.0	B	
				PM	22.9	C	
18	Madonna Road & Oceanaire Drive[6]	Signal	D	AM	45.8	D	
				PM	34.4	C	
19	Madonna Road & Dalidio Drive	Signal	D	AM	21.6	C	
				PM	28.8	C	
20	Madonna Road & US 101 SB Ramps/Madonna Inn	Signal	C	AM	33.2	C	
				PM	**43.6**	**D**	**1.21**
21	Madonna Road & US 101 NB Ramps	Signal	C	AM	17.8	B	
				PM	**54.4**	**D**	**1.15**
22	Dalidio Drive & Froom Ranch Way	Roundabout	D	AM	3.3	A	
				PM	3.5	A	

Notes:
[1]Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.
[2]LOS – Levels of Service
[3] Volume-to-capacity ratio reported for worst movement only.
[4]TWSC – Two-way-stop controlled intersection
[5]AWSC – All-way stop controlled intersection
[6]HCM 6th Methodology does not support intersections with more than four approaches. Hence HCM 2000 Methodology used for intersection 14 and 18
Bold indicates unacceptable operations.

As shown in **Table 3.1-31**, under the Near Term Scenario 2 conditions, the following three intersections are projected to exceed the City's minimum automobile LOS threshold:

- Los Osos Valley Road and Oceanaire Drive, during a.m. and p.m. peak hours
- Madonna Road and US 101 SB Ramps, during p.m. peak hour
- Madonna Road and US 101 NB Ramps, during p.m. peak hour

Table 3.1-32: Near Term Scenario 2 Intersection LOS – Pedestrian Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	C	1.75	B	1.75	B
		WB	C	2.50	C	2.44	B
		NB	C	2.76	C	2.82	C
		SB	C	2.83	C	2.97	C
2	Los Osos Valley Road & Prefumo Canyon Road	EB	C	n/a			
		WB	C				
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	**>5.0**	**F**	**>5.0**	**F**
3	Los Osos Valley Road & Laguna Lane	EB	C	n/a/			
		WB	C	2.40	B	2.22	B
		NB	C	2.87	C	2.86	C
		SB	C	2.93	C	3.08	C
4	Los Osos Valley Road & Oceanaire Drive	EB	C	n/a			
		WB	C				
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	**>5.0**	**F**	**>5.0**	**F**
5	Los Osos Valley Road & Royal Way	EB	C	2.02	B	2.02	B
		WB	C	2.00	B	1.99	B
		NB	C	3.16	C	3.22	C
		SB	C	3.14	C	3.19	C
6	Los Osos Valley Road & Madonna Road	EB	C	2.14	B	2.15	B
		WB	C	3.00	C	3.13	C
		NB	C	3.04	C	3.28	C
		SB	C	3.41	C	**3.53**	**D**
7	Los Osos Valley Road & Froom Ranch Way	EB	C	2.63	C	2.75	C
		WB	C	2.55	C	2.59	C
		NB	C	3.15	C	3.32	C
		SB	C	3.12	C	3.30	C
8	Los Osos Valley Road & Auto Park Way	EB	C	n/a			
		WB	C	2.02	B	2.04	B
		NB	C	3.03	C	3.47	C
		SB	C	2.99	C	3.38	C
9	Los Osos Valley Road & Calle Joaquin	EB	C	2.49	B	2.49	B
		WB	C	2.10	B	2.11	B
		NB	C	3.18	C	3.46	C
		SB	C	3.05	C	3.22	C
10	Los Osos Valley Road & US 101 SB Ramps	EB	C	1.95	B	2.32	B
		WB	C	2.30	B	2.24	B
		NB	C	3.05	C	3.18	C
		SB	C	3.09	C	3.39	C
11		EB	C	2.50	C	2.61	C

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
	Los Osos Valley Road & US 101 NB Ramps	WB	C	1.43	A	1.43	A
		NB	C	2.95	C	2.97	C
		SB	C	3.05	C	3.15	C
12	Los Osos Valley Road & S. Higuera Street	EB	C	2.88	C	2.98	C
		WB	C	n/a			
		NB	C	2.40	B	2.45	B
		SB	C	2.91	C	3.06	C
13	S. Higuera Street & Vachelle Lane	EB	C	n/a			
		WB	C				
		NB	C				
		SB	C				
14	S. Higuera Street & Suburban Road	EB	C	n/a			
		WB	C	2.20	B	2.30	B
		NB	C	3.05	C	3.28	C
		SB	C	2.81	C	3.02	C
15	S. Higuera Street & Tank Farm Road	EB	C	2.04	B	2.05	B
		WB	C	3.01	C	3.16	C
		NB	C	3.39	C	**3.65**	**D**
		SB	C	2.73	C	3.08	C
16	S. Higuera Street & Prado Road	EB	C	2.61	C	2.73	C
		WB	C	2.48	B	2.57	C
		NB	C	2.86	C	3.11	C
		SB	C	2.82	C	3.00	C
17	Prado Road/US 101 NB Ramps	EB	C	n/a			
		WB	C				
		NB	C				
		SB	C				
18	Madonna Road & Oceanaire Drive	EB	C	2.78	C	2.95	C
		WB	C	3.29	C	3.44	C
		NB	C	2.01	B	2.02	B
		SB	C	2.04	B	1.98	B
		SE	C	1.82	B	1.86	B
		NE	C	1.78	B	1.79	B
19	Madonna Road & Dalidio Drive	EB	C	3.11	C	3.24	C
		WB	C	3.17	C	3.28	C
		NB	C	2.52	C	2.64	C
		SB	C	1.99	B	2.00	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	C	3.01	C	3.16	C
		WB	C	3.06	C	3.10	C
		NB	C	2.85	C	2.87	C
		SB	C	2.17	B	2.19	B
21	Madonna Road & US 101 NB Ramps	EB	C	3.02	C	3.06	C
		WB	C	2.86	C	2.91	C

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
		NB	C	2.00	B	2.01	B
		SB	C	2.09	B	2.17	B

Notes:
[1]For unsignalized AWSC intersections, pedestrian delay is reported as pedestrian LOS methodology is not supported for crosswalks that intersect stop-sign controlled approaches. For unsignalized TWSC intersections, pedestrian LOS methodology is limited to the uncontrolled crossings.

As shown in **Table 3.1-32**, under the Near Term Scenario 2 conditions evaluated in the traffic study, the following intersections are projected to exceed the City's minimum pedestrian LOS threshold:

- Los Osos Valley Road and Perfumo canyon Road in northbound and southbound direction during both the a.m. and the p.m. peak hours
- Los Osos Valley Road and Oceanaire Drive in the northbound direction during both the a.m. and the p.m. peak hours
- Los Osos Valley Road and Madonna Road in the southbound direction during the p.m. peak hour
- S Higuera Street and Tank Farm Road in the northbound direction during p.m. peak hour

Table 3.1-33: Near Term Scenario 2 Intersection LOS – Bicycle Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	D	2.71	C	2.71	C
		WB	D	3.34	C	4.05	D
		NB	D	2.92	C	3.22	C
		SB	D	2.73	C	2.00	B
3	Los Osos Valley Road & Laguna Lane	EB	D	n/a			
		WB	D	3.26	C	2.82	C
		NB	D	1.99	B	2.36	B
		SB	D	1.54	B	1.45	A
5	Los Osos Valley Road & Royal Way	EB	D	3.17	C	2.99	C
		WB	D	3.30	C	2.96	C
		NB	D	2.73	C	3.13	C
		SB	D	2.32	B	2.05	B
6	Los Osos Valley Road & Madonna Road	EB	D	3.42	C	3.26	C
		WB	D	3.68	D	**4.60**	**E**
		NB	D	1.72	B	2.25	B
		SB	D	2.92	C	2.67	C
7	Los Osos Valley Road & Froom Ranch Way	EB	D	3.49	C	4.33	D
		WB	D	2.25	B	2.49	B
		NB	D	1.89	B	2.45	B
		SB	D	1.79	B	1.91	B
8	Los Osos Valley Road & Auto Park Way	EB	D	n/a			
		WB	D	2.61	C	2.76	C
		NB	D	3.12	C	3.73	D
		SB	D	3.45	C	3.80	D
9	Los Osos Valley Road & Calle Joaquin	EB	D	3.11	C	3.09	C
		WB	D	3.16	C	3.32	C
		NB	D	1.71	B	2.17	B
		SB	D	1.92	B	0.87	A
10	Los Osos Valley Road & US 101 SB Ramps	EB	D	n/a			
		WB	D	2.90	C	2.69	C
		NB	D	1.89	B	2.38	B
		SB	D	1.71	B	2.02	B
11	Los Osos Valley Road & US 101 NB Ramps	EB	D	3.94	D	3.93	D
		WB	D	1.39	A	1.39	A
		NB	D	1.94	B	2.31	B
		SB	D	2.43	B	2.38	B
12	Los Osos Valley Road & S. Higuera Street	EB	D	2.07	B	1.88	B
		WB	D	n/a			
		NB	D	2.23	B	1.87	B
		SB	D	2.48	B	3.92	D

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
14	S. Higuera Street & Suburban Road	EB	D	n/a			
		WB	D	1.17	A	1.57	B
		NB	D	2.44	B	2.19	B
		SB	D	2.09	B	2.69	C
15	S. Higuera Street & Tank Farm Road	EB	D	2.73	C	2.74	C
		WB	D	3.88	D	**5.16**	**E**
		NB	D	2.25	B	2.43	B
		SB	D	1.81	B	2.37	B
16	S. Higuera Street & Prado Road	EB	D	2.14	B	1.98	B
		WB	D	2.07	B	3.00	C
		NB	D	1.77	B	2.51	C
		SB	D	2.30	B	2.23	B
18	Madonna Road & Oceanaire Drive	EB	D	2.78	C	2.84	C
		WB	D	1.54	B	2.22	B
		NB	D	2.87	C	2.86	C
		SB	D	2.73	C	2.31	B
		SE	D	2.62	C	2.62	C
		NE	D	2.20	B	2.20	B
19	Madonna Road & Dalidio Drive	EB	D	2.18	B	2.24	B
		WB	D	1.73	B	2.14	B
		NB	D	2.02	B	2.63	C
		SB	D	1.59	B	1.94	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	D	2.00	B	2.07	B
		WB	D	1.73	B	2.05	B
		NB	D	3.86	D	3.78	D
		SB	D	2.94	C	2.99	C
21	Madonna Road & US 101 NB Ramps	EB	D	2.81	C	2.44	B
		WB	D	1.77	B	2.30	B
		NB	D	2.27	B	2.32	B
		SB	D	n/a			

Notes:
Bicycle LOS summary excludes unsignalized intersections and locations where no bicycle facilities are provided as HCM 6th Bike LOS Methodology do not model segments bounded by unsignalized intersections.

As shown in **Table 3.1-33**, under the Near Term Scenario 2 conditions evaluated in the traffic study, the following intersections are projected to exceed the City's minimum bicycle LOS threshold:

- Los Osos Valley Road and Madonna Road in the westbound direction during p.m. peak hour
- South Higuera Street and Tank Farm Road in the westbound direction during p.m. peak hour

Table 3.1-34: Near Term Scenario 2 – 95th Percentile Queuing Analysis

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Conditions - Scenario 2
1	Los Osos Valley Road & Foothill Boulevard	WBR	180	AM	0
				PM	0
		NBL	120	AM	0
				PM	15
		NBR	370	AM	30
				PM	150
		SBL	490	AM	**#585**
				PM	#280
3	Los Osos Valley Road & Laguna Lane	WBL	Trap Lane	AM	90
				PM	40
		WBR	Trap Lane	AM	0
				PM	15
		NBR	80	AM	10
				PM	40
		SBL	120	AM	45
				PM	25
5	Los Osos Valley Road/Royal Way	EBR	70	AM	15
				PM	0
		WBR	70	AM	0
				PM	0
		NBL	110	AM	30
				PM	70
		SBL	160	AM	15
				PM	15
		SBR	50	AM	0
				PM	0
6	Los Osos Valley Road & Madonna Road	EBL	230	AM	135
				PM	80
		WBL	Trap Lane	AM	95
				PM	220
		WBR	170	AM	50
				PM	85
		NBL	200	AM	90
				PM	#190
		NBR	175	AM	50
				PM	80
		SBL	350	AM	280
				PM	#240
7	Los Osos Valley Road & Froom Ranch Way	EBL	250	AM	#70
				PM	**#260**
		EBR	250	AM	0

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Conditions - Scenario 2
				PM	65
		WBL	295	AM	55
				PM	100
		WBR	50	AM	0
				PM	35
		NBL	300	AM	#125
				PM	**#310**
		SBL	160	AM	35
				PM	#120
8	Los Osos Valley Road/Auto Parkway (Project Driveway)	EBL	100	AM	-
				PM	-
		EBR	100	AM	-
				PM	-
		WBL	Trap Lane	AM	30
				PM	80
		WBR	175	AM	15
				PM	30
		NBL	200	AM	-
				PM	-
		SBL	100	AM	40
				PM	60
		SBR	100	AM	-
				PM	-
9	Los Osos Valley Road/Calle Joaquin	EBL	260	AM	30
				PM	45
		EBR	260	AM	15
				PM	25
		WBL	100	AM	55
				PM	**130**
		NBL	130	AM	m10
				PM	m10
		NBR	130	AM	m15
				PM	m50
		SBL	120	AM	25
				PM	20
		SBR	120	AM	5
				PM	10
10	Los Osos Valley Road & US 101 SB Ramps	WBR	190	AM	125
				PM	**230**
		NBL	220	AM	m50
				PM	m100
		SBR	120	AM	100

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Conditions - Scenario 2
				PM	**#375**
11	Los Osos Valley Road & US 101 NB Ramps	EBL	610	AM	#395
				PM	#415
		NBL	400	AM	90
				PM	175
		SBR	133	AM	m0
				PM	0
12	Los Osos Valley Road & S. Higuera Street	EBL	Trap Lane	AM	#460
				PM	#470
		EBR	100	AM	45
				PM	50
		NBL	200	AM	55
				PM	30
		SBR	Trap Lane	AM	120
				PM	#585
14	S. Higuera Street & Suburban Road	WBL	Trap Lane	AM	50
				PM	185
		SBL	170	AM	#100
				PM	#140
15	S. Higuera Street & Tank Farm Road	EBR	Trap Lane	AM	0
				PM	0
		WBL	Trap Lane	AM	230
				PM	540
		WBR	250	AM	55
				PM	**295**
		NBL	140	AM	55
				PM	60
		NBR	100	AM	90
				PM	**140**
		SBL	165	AM	**#570**
				PM	**#860**
16	S. Higuera Street & Prado Road	EBL	300	AM	75
				PM	#90
		EBR	300	AM	0
				PM	0
		WBL	105	AM	**#165**
				PM	**#175**
		WBR	410	AM	0
				PM	10
		NBL	300	AM	120
				PM	#250
		SBL	200	AM	**#355**

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Conditions - Scenario 2
				PM	#180
18	Madonna Road & Oceanaire Drive	EBL	115	AM	40
				PM	#50
		WBL	115	AM	**#125**
				PM	**#280**
		WBR	100	AM	**205**
				PM	**#505**
		NBR	50	AM	0
				PM	0
19	Madonna Road & Dalidio Drive	EBL	145	AM	40
				PM	#60
		EBR	100	AM	20
				PM	85
		WBL	350	AM	#125
				PM	#240
		NBL	150	AM	40
				PM	135
		NBR	150	AM	10
				PM	60
		SBR	50	AM	0
				PM	0
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EBL	100	AM	#55
				PM	#75
		WBL	260	AM	195
				PM	m185
		NBL	Trap Lane	AM	#210
				PM	#515
		NBR	275	AM	150
				PM	50
		SBL	Trap Lane	AM	20
				PM	30
		SBR	100	AM	0
				PM	0
21	Madonna Road & US 101 NB Ramps	EBL	435	AM	m160
				PM	m#320
		NBL	185	AM	100
				PM	170

Notes:
Queue length rounded to nearest five feet. Queuing analysis is reported for signalized intersections only.
Bold: 95th percentile volume exceeds capacity. m queue is metered by upstream intersection.
95th percentile queue exceeds capacity Trap - denotes design where the thru-lane terminates in a turn-lane.
Westbound thru-lane (WBL); Westbound right-turn lane (WBR); Eastbound thru-lane (EBL); Northbound thru-lane (NBL); Northbound right-turn lane (NBR); Northbound trap (NBT); Southbound thru-lane (SBL); Southbound trap (SBT); Southbound right-turn lane (SBR)

As shown in **Table 3.1-34**, following three intersections have vehicle queues that are projected exceed lane capacity during a.m. or p.m. peak hours:

- Los Osos Valley Road and Foothill Boulevard (SBL during a.m. peak hour)
- Los Osos Valley Road and Froom Ranch Way (EBL and NBL during p.m. peak hour)
- Los Osos Valley Road and Calle Joaquin (WBL during p.m. peak hour)
- Los Osos Valley Road and US 101 SB Ramps (SBR and WBR during p.m. peak hour)
- S Higuera Street and Tank Farm Road (WBR and NBR during p.m. peak hour and SBL during both the a.m. and p.m. peak hours)
- S Higuera Street and Prado Road (WBL during both the a.m. and p.m. peak hours and SBL during the a.m. peak hour)
- Madonna Road and Oceanaire Drive (WBL and WBR during both the a.m. and the p.m. hours)

Table 3.1-35 through **Table 3.1-38** provides a summary of the multimodal a.m. and p.m. peak hour segment LOS under Near Term Scenario 2 conditions.

As shown in **Table 3.1-35**, under Near Term Scenario 2 conditions, following roadway segments are projected to exceed City's minimum automobile LOS threshold:

- Los Osos Valley Road from Oceanaire Drive to Madonna Road operates at LOS E during a.m. peak hour and LOS F during p.m. peak hour in the southbound direction.
- Los Osos Valley Road from Madonna Road to Froom Ranch Way operates at LOS E in the northbound direction during p.m. peak hour.
- Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps operates at LOS E in the southbound direction during p.m. peak hour.
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS E during the p.m. peak hour in northbound direction.

As shown in **Table 3.1-36**, under Near Term Scenario 2 conditions, the following roadway segments are projected to exceed City's minimum pedestrian LOS threshold:

- Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive operates at LOS D during a.m. and p.m. peak hour in the southbound direction and operates at LOS D during p.m. peak hour in northbound direction.
- Los Osos Valley Road from Madonna Road to Froom Ranch Way operates at LOS F during a.m. peak hour in the northbound direction and operates at LOS D during p.m. peak hour in the northbound and southbound direction.
- Los Osos Valley Road from Froom Ranch Way to Calle Joaquin operates at LOS D during p.m. peak hour in the southbound direction.

- Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps operates at LOS D in southbound direction during a.m. and p.m. peak hours and operates at LOS D in northbound direction during p.m. peak hour.
- Los Osos Valley Road from US 101 NB Ramps to South Higuera Street operates at LOS E during a.m. peak hour and operates at LOS D during a.m. peak hour in the southbound direction and northbound direction, the segment is projected to operate at LOS D during the p.m. peak hour.
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS D during p.m. peak hour in the southbound direction.
- South Higuera Street from Tank Farm Road to Prado Road operates at LOS F during a.m. and p.m. peak hours in the southbound direction.
- Madonna Road from Los Osos Valley Road to Dalidio Drive operates at LOS F in eastbound direction during a.m. peak hour and in the westbound direction, the segment is projected to operate at LOS F during a.m. peak hour and at LOS D during p.m. peak hour.

Table 3.1-39 and **Table 3.1-40** provides a summary of the Near Term Scenario 2 conditions for US 101 mainline, ramp junction and weaving sections operations during the a.m. and p.m. peak hour conditions. As shown in **Table 3.1-29**, under Near Term Scenario 1 Conditions, the following freeway segments are projected to exceed Caltrans minimum LOS thresholds:

- US 101 northbound, Los Osos Valley Road Off Ramp operates at LOS D during a.m. peak hour
- US 101 northbound, Prado Road On Ramp operates at LOS D during p.m. peak hour
- US 101 northbound, south of Madonna Road operates at LOS D during a.m. peak hour and p.m. peak hour
- US 101 northbound, Madonna Road Off Ramp operates at LOS D during a.m. peak hour and operates at LOS E during the p.m. peak hour
- US 101 southbound, north of Madonna Road operates at LOS D during p.m. peak hour
- US 101southbound, Madonna Road On Ramp operates at LOS D during p.m. peak hour
- US 101 southbound, north of Prado Road operates at LOS D during p.m. peak hour
- US 101 southbound, Los Osos Valley Road On Ramp operates at LOS D during a.m. peak hour
- US 101 southbound, north of S Higuera Street operates at LOS E during p.m. peak hour

Detailed roadway segment analysis worksheets are included in **Appendix C**, detailed freeway analysis worksheets for mainline, merge and diverge worksheets are attached in **Appendix D**, and detailed Leisch method analysis worksheets for weave segments are attached in **Appendix E**.

Table 3.1-35: Near Term Scenario 2 Segment Level of Service: Automobile Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	31.83	45.46	70.02%	B	33.38	45.46	73.4%	B
		NB	D	28.93	45.45	63.65%	C	27.79	45.45	61.1%	C
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	**13.33**	**42.64**	**31.26%**	**E**	**9.70**	**42.64**	**22.7%**	**F**
		NB	D	24.01	45.68	52.56%	C	22.08	45.68	48.3%	D
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	26.48	44.82	59.08%	C	19.37	44.83	43.2%	D
		NB	D	19.87	44.83	44.32%	D	**16.93**	**44.82**	**37.8%**	**E**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	36.56	44.80	81.61%	A	33.98	44.80	75.8%	B
		NB	D	32.56	45.22	72.00%	B	28.03	45.22	62.0%	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	20.12	45.33	43.37%	D	**17.83**	**45.33**	**39.3%**	**E**
		NB	D	19.24	40.66	47.31%	D	24.03	45.36	53.0%	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	21.59	40.64	53.12%	C	22.32	40.78	54.7%	C
		NB	D	27.45	41.19	66.64%	C	31.07	45.77	67.9%	B
7	S. Higuera Street from City Limit south to US 101/Clover Ridge Lane	SB	D	45.53	45.72	97.40%	A	43.72	45.72	95.6%	A
		NB	D	40.74	45.73	89.09%	A	42.27	45.73	92.44%	A
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	23.63	45.33	51.99%	C	20.47	45.34	45.1%	D
		NB	D	19.83	45.68	43.40%	D	**14.99**	**45.69**	**32.8%**	**E**
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	31.44	45.21	69.54%	B	24.58	45.23	54.3%	C
		NB	D	27.80	45.21	61.49%	C	25.87	45.24	57.2%	C
10	Tank Farm Road from S. Higuera Street to Broad Street	EB	D	34.08	43.15	78.98%	B	34.15	43.15	79.1%	B
		WB	D	33.87	42.40	79.88%	B	33.74	42.38	79.6%	B
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	22.96	38.92	58.99%	C	21.33	39.14	54.5%	C
		WB	D	21.02	38.84	54.12%	C	20.21	39.15	51.6%	C

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	39.55	41.09	96.25%	A	38.09	41.09	92.7%	A
		WB	D	31.11	41.08	75.73%	B	28.18	41.08	68.6%	B

Notes:
Bold indicates deficient Level of Service

Table 3.1-36: Near Term Scenario 2 Segment Level of Service: Pedestrian Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	C	**3.67**	**D**	**3.54**	**D**
		NB	C	3.29	C	**4.11**	**D**
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	C	3.36	C	3.25	C
		NB	C	2.84	C	3.25	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	C	3.38	C	**3.50**	**D**
		NB	C	**3.23**	**F**	**3.70**	**D**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	C	3.45	C	**3.67**	**D**
		NB	C	3.41	C	3.49	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	C	**3.85**	**D**	**3.60**	**D**
		NB	C	3.48	C	**3.84**	**D**
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	C	**4.56**	**E**	**3.93**	**D**
		NB	C	**3.55**	**D**	3.39	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	C	3.25	C	**3.89**	**D**
		NB	C	2.87	C	3.05	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	C	**3.45**	**F**	**4.31**	**F**
		NB	C	2.57	C	3.33	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	C	**4.26**	**F**	3.14	C
		WB	C	**3.78**	**F**	**4.14**	**D**
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	C	2.48	C	2.50	C
		WB	C	2.84	C	2.77	C

Notes:
Bold indicates deficient Level of Service

Table 3.1-37: Near Term Scenario 2 Segment LOS: Bicycle Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.04	B	1.99	A
		NB	D	1.61	A	1.89	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.32	C	2.26	C
		NB	D	1.57	A	1.82	A
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	2.67	C	2.66	C
		NB	D	1.49	A	1.84	A
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	2.52	C	2.64	C
		NB	D	1.87	A	2.05	B
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	2.86	C	2.82	C
		NB	D	2.59	C	2.96	C
6	Los Osos Valley Road from US 101 NB Ramps to South Higuera Street	SB	D	2.44	C	2.45	C
		NB	D	1.83	A	1.99	A
7	South Higuera Street from City Limit south to US 101/Clover Ridge Lane	SB	D	1.56	A	1.78	A
		NB	D	1.60	A	1.48	A
8	South Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	2.55	C	2.95	C
		NB	D	2.90	C	2.99	C
9	South Higuera Street from Tank Farm Road to Prado Road	SB	D	2.46	C	2.72	C
		NB	D	2.06	B	2.41	C
10	Tank Farm Road from South Higuera Street to Broad Street	EB	D	2.74	C	2.71	C
		WB	D	2.90	C	2.99	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.07	C	3.01	C

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
		WB	D	2.23	B	2.52	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	0.63	A	0.65	A
		WB	D	0.89	A	0.43	A

Notes:
Bold indicates deficient Level of Service

Table 3.1-38: Near Term Scenario 2 Segment LOS: Transit Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.91	C	2.88	C
		NB	D	1.75	A	1.96	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.49	C	2.61	C
		NB	D	2.78	C	2.92	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	3.56	D	3.77	D
		NB	D	2.06	B	2.16	B
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	3.04	C	3.14	C
		NB	D	3.24	C	3.41	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	3.98	D	3.51	D
		NB	D	3.61	D	3.36	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	4.13	D	4.17	D
		NB	D	3.25	C	3.88	D
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	3.57	D	4.02	D
		NB	D	3.27	C	4.18	D

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.29	C	3.28	C
		WB	D	3.35	C	3.45	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	0.33	A	0.28	A
		WB	D	0.77	A	0.96	A

Notes:
Segments with no transit stops are excluded from the analysis.

Table 3.1-39: Near Term Scenario 2 Segment LOS: Freeway Mainline, Ramps & Weaving Sections Analysis

#	Interchange Location	Target LOS	Segment Type	Lanes	AM Peal Hour			PM Peal Hour		
					Volume	Density (pc/mi/ln)	LOS	Volume	Density (pc/mi/ln)	LOS
US 101 Northbound										
	US 101 NB, south of S Higuera Street	C	Freeway	2	2,530	21.5	C	2,571	21.8	C
	US 101 NB, south of Los Osos Valley Road	C	Freeway	2	2,817	24.0	C	2,156	18.3	C
	US 101 NB Los Osos Valley Road Off Ramp	C	Diverge	1	688	**29.0**	**D**	724	22.3	C
	US 101 NB Los Osos Valley Road On Ramp	C	Merge	1	179	28.9	C	496	25.2	C
	US 101 NB, north of Prado Road	C	Freeway	2	2,491	21.1	C	2,564	21.8	C
	US 101 NB Prado Road Off Ramp	C	Diverge	1	312	25.4	C	143	25.9	C
	US 101 NB Prado Road On Ramp	C	Merge	1	323	27.1	C	552	**30.4**	**D**
	US 101 NB, south of Madonna Road	C	Freeway	2	3,062	**26.5**	**D**	3,427	**30.7**	**D**
	US 101 NB, Madonna Road Off Ramp	C	Diverge	1	293	**31.2**	**D**	341	**34.9**	**E**
US 101 Southbound										
	US 101 SB, north of Madonna Road	C	Freeway	2	2,131	18.1	C	3,168	**27.6**	**D**
	US 101 SB Madonna Road On Ramp	C	Merge	1	259	22.9	C	386	**35.9**	**D**
	US 101 SB, north of Prado Road	C	Freeway	2	2,048	17.4	B	3,331	**29.5**	**D**
	US 101 SB, south of Los Osos Valley Road	C	Freeway	2	1,314	11.2	B	2,394	20.3	C
	US 101 SB Los Osos Valley Road Off Ramp	C	Diverge	1	672	13.6	B	619	24.7	C

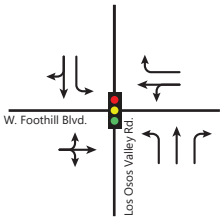
#	Interchange Location	Target LOS	Segment Type	Lanes	AM Peal Hour			PM Peal Hour		
					Volume	Density (pc/mi/ln)	LOS	Volume	Density (pc/mi/ln)	LOS
	US 101 SB Los Osos Valley Road On Ramp	C	Merge	1	404	16.2	B	755	**30.8**	**D**
	US 101 SB, north of S Higuera Street	C	Freeway	2	2,369	20.1	C	3,858	**37.0**	**E**

Table 3.1-40: Near Term Scenario 2 Weaving Segment Analysis – Leisch Method

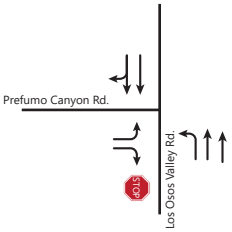
Interchange Location	Target LOS	Segment Type	No. of Lanes	Length	AM Peak		PM Peak	
					Total Volume	LOS	Total Volume	LOS
US 101 Northbound								
Between Los Osos Valley Road and Prado Road	C	Weave	2	4,380	3,344	A	3,047	A
Between Prado Road and Madonna Road	C	Weave	2	2,280	3,685	A	4,232	A
US 101 Southbound								
Between Madonna Road and Los Osos Valley Road	C	Weave	2	5,490	3,062	A	4,228	A

Near Term (2025) Scenario 2 Lane geometries and Traffic Controls

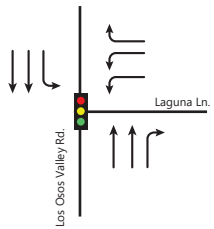
Intersection #1
W. Foothill Blvd. / Los Osos Valley Rd.



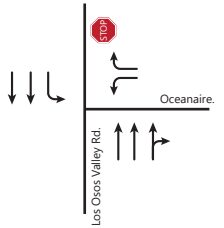
Intersection #2
Los Osos Valley Rd./Prefumo Canyon Rd.



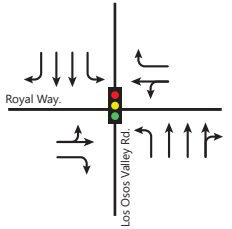
Intersection #3
Los Osos Valley Rd. / Laguna Ln.



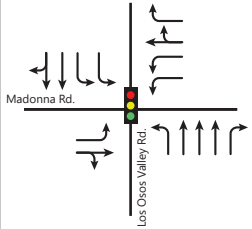
Intersection #4
Los Osos Valley Rd./Oceanaire Dr.



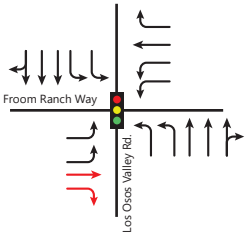
Intersection #5
Los Osos Valley Rd./Royal Way



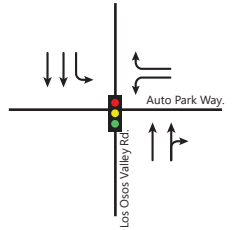
Intersection #6
Los Osos Valley Rd./Madonna Rd.



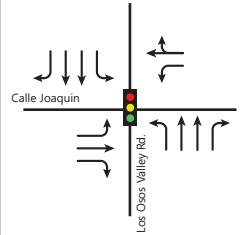
Intersection #7
Los Osos Valley Rd./Froom Ranch Way



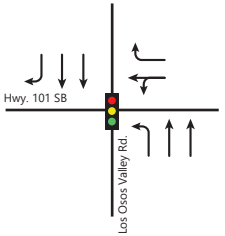
Intersection #8
Los Osos Valley Rd./Auto Park Way



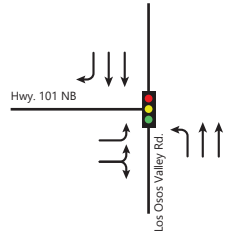
Intersection #9
Los Osos Valley Rd./Calle Joaquin



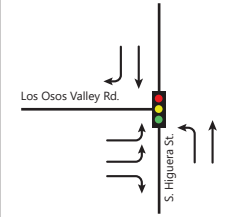
Intersection #10
Los Osos Valley Rd. / Hwy. 101 SB



Intersection #11
Los Osos Valley Rd. / Hwy. 101 NB



Intersection #12
S. Higuera St. / Los Osos Valley Rd.



LEGEND

- Stop Sign
- Traffic Signal
- Roundabout
- Proposed Geometrics
- Future Intersection
- City Limits
- Widen to 4 Lanes
- Future Roadway

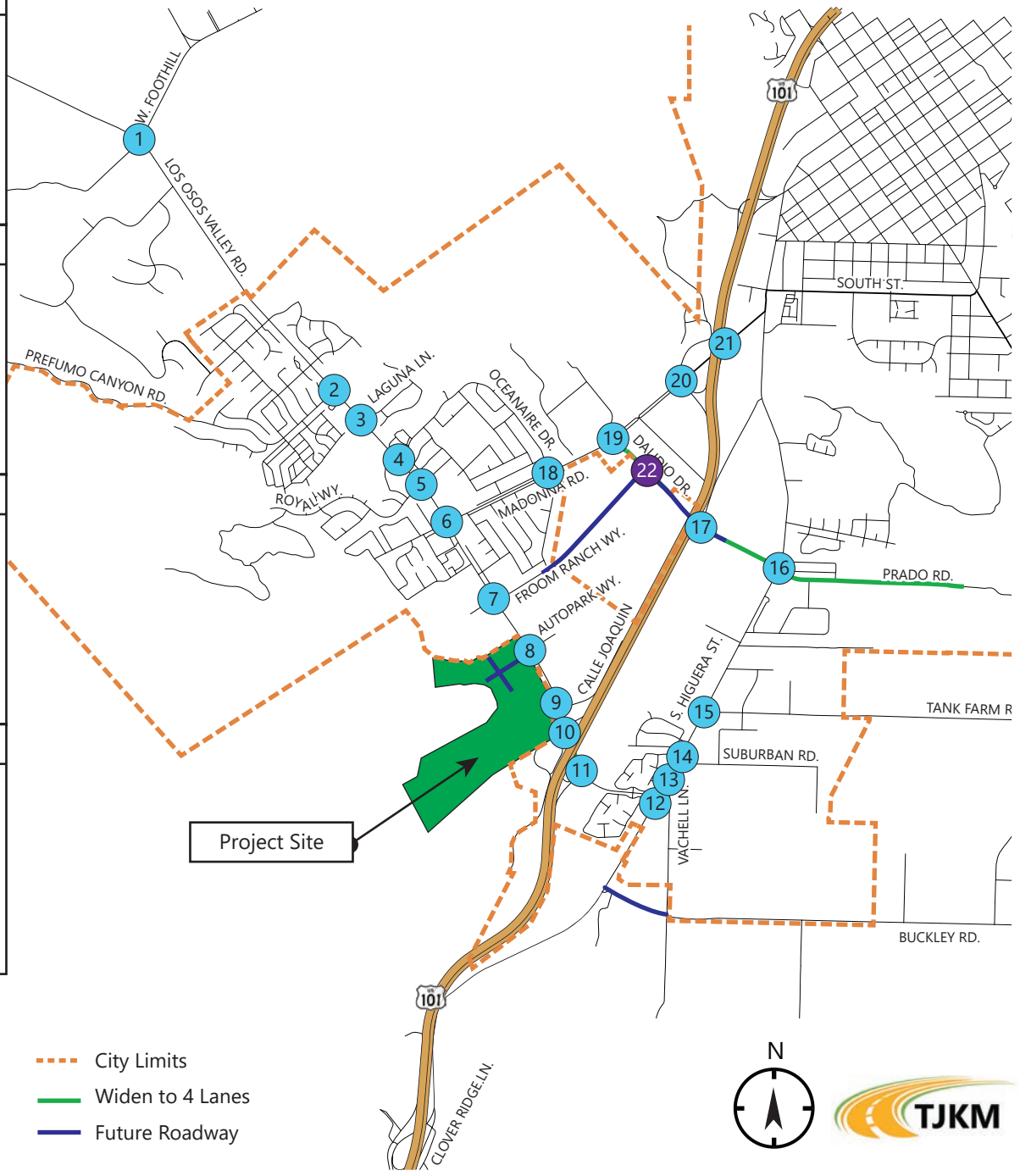


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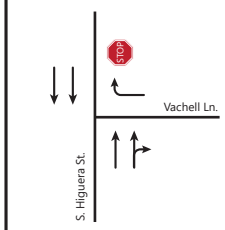
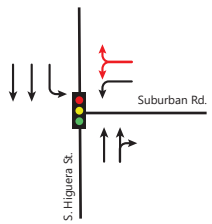
Figure 3.1-10

Near Term (2025) Scenario 2 Lane geometries and Traffic Controls

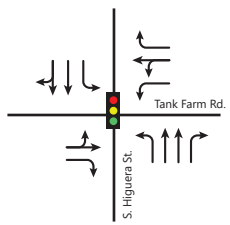
Intersection #13
S. Higuera St. / Vachell Ln.



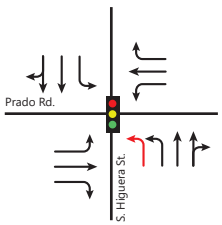
Intersection #14
S. Higuera St. / Suburban Rd.



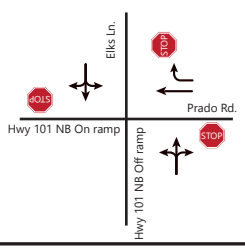
Intersection #15
S. Higuera St. / Tank Farm Rd.



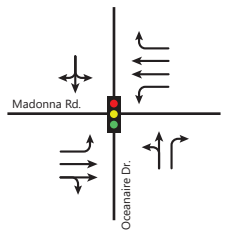
Intersection #16
S. Higuera St. / Prado Rd.



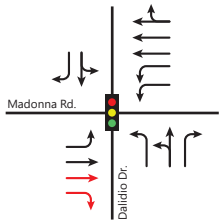
Intersection #17
Prado Rd. / Hwy 101 NB / Elks Ln.



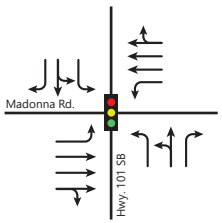
Intersection #18
Oceanaire Dr. / Madonna Rd.



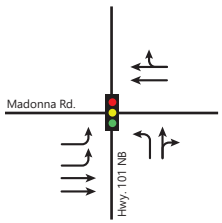
Intersection #19
Dalidio Dr. / Madonna Rd.



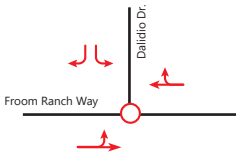
Intersection #20
Hwy. 101 SB / Madonna Rd.

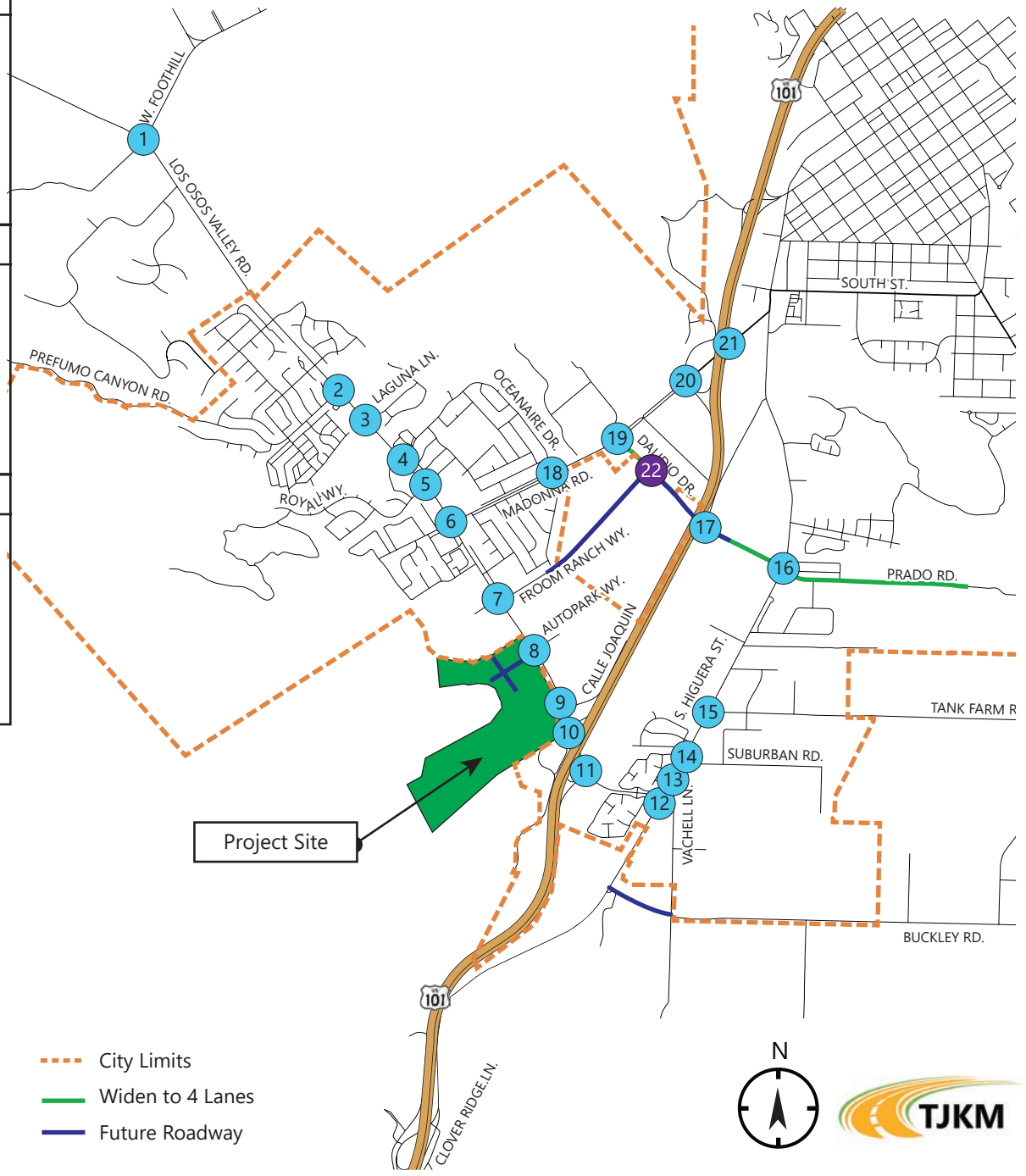


Intersection #21
Hwy. 101 NB / Madonna Rd.



Intersection #22
Dalidio Dr. / Froom Ranch Way
(Future Intersection)





LEGEND

- Stop Sign
- Traffic Signal
- Roundabout
- Proposed Geometrics
- Future Intersection
- City Limits
- Widen to 4 Lanes
- Future Roadway

TJKM

Figure 3.1-10

Near Term (2025) Near Term Scenario 2 Turning Movement Volumes

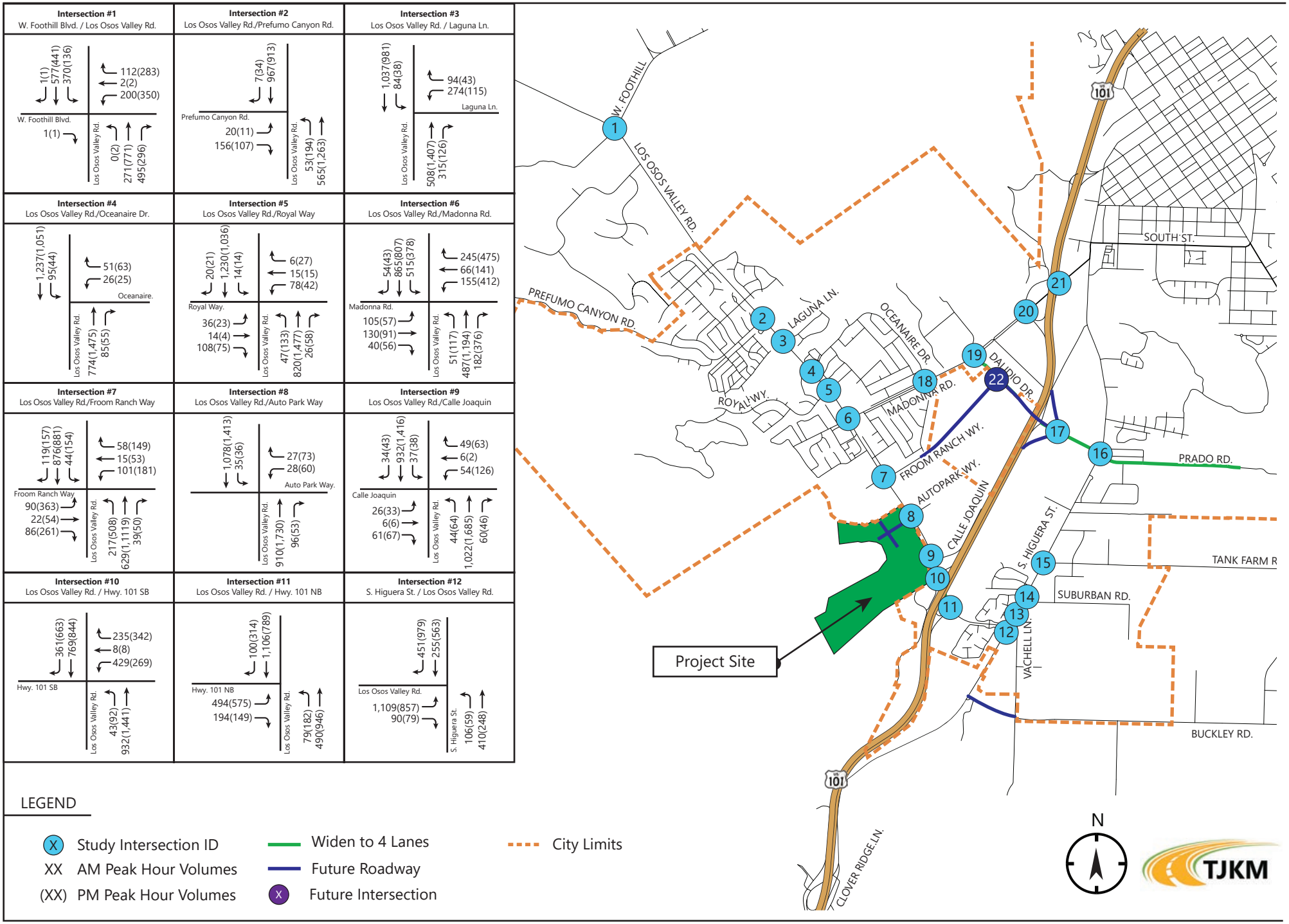


Figure 3.1-11

Near Term (2025) Near Term Scenario 2 Turning Movement Volumes

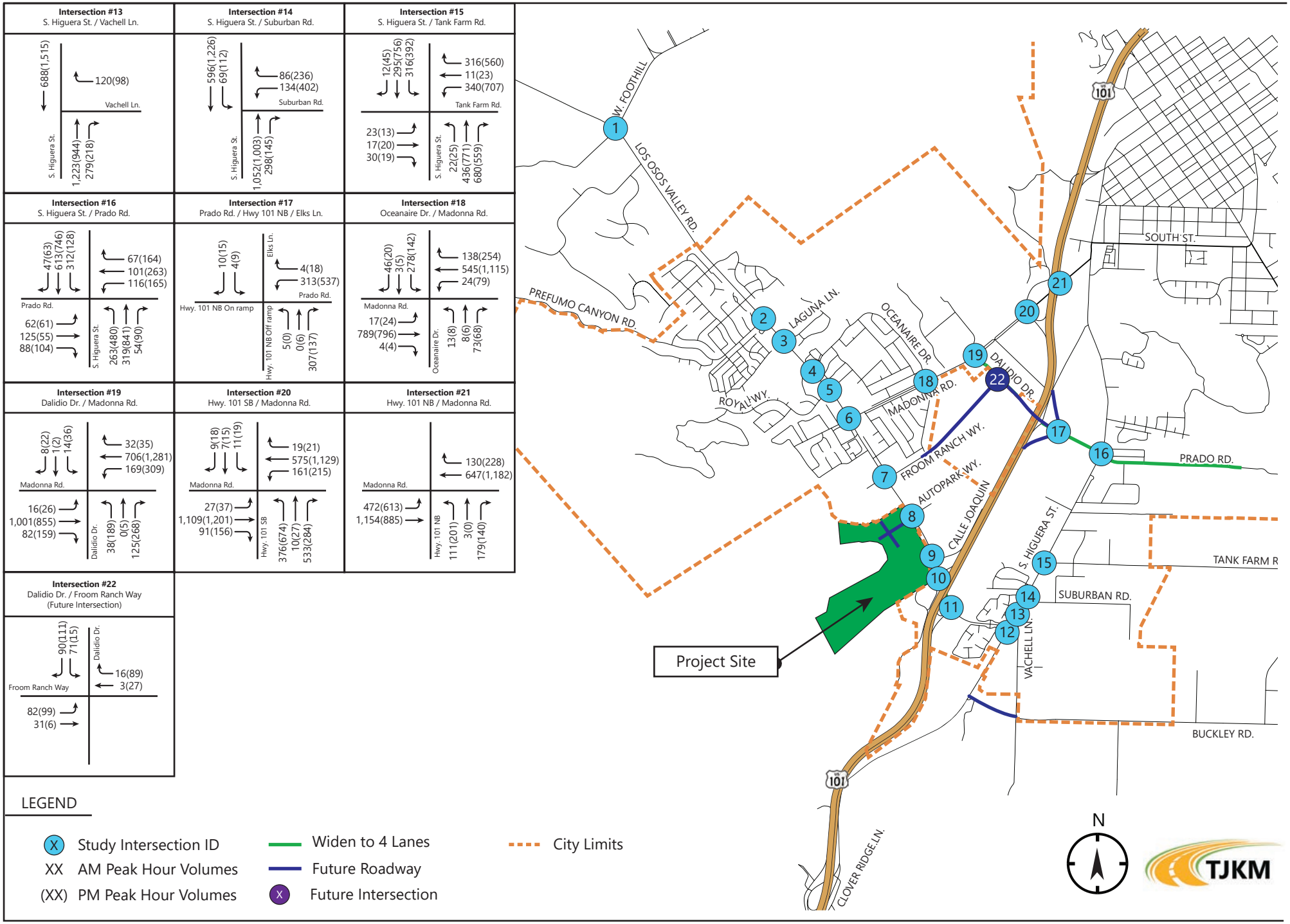


Figure 3.1-11

3.2 REGULATORY SETTING

This Section describes applicable federal, state, and local regulations.

Americans with Disabilities Act (ADA; 1990)

Title III of the ADA (codified in Title 42 of the US Code [USC]), prohibits discrimination on the basis of disability in places of public accommodation (i.e., businesses and non-profit agencies that serve the public) and commercial facilities (i.e., other businesses). This regulation includes Appendix A to Part 36, Standards for Accessible Design, which establishes minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility. Examples of key guidelines include detectable warning for pedestrians entering traffic where there is no curb, a clear zone of 48 inches for the pedestrian travel way, and a vibration-free zone for pedestrians.

California Department of Transportation

Caltrans manages the operation of State Highways, including the US 101, which passes through the San Luis Obispo area.

Senate Bill (SB) 743

To further the State's commitment to the goals of SB 375, Assembly Bill (AB) 32, and AB 1358, SB 743 adds Chapter 2.7, Modernization of Transportation Analysis for Transit-Oriented Infill Projects, to Division 13 (Section 21099) of the Public Resources Code. Key provisions of SB 743 include reforming aesthetics and parking California Environmental Quality Act (CEQA) analysis for urban infill projects and replacing the measurement of automobile delay with vehicle miles traveled as a metric that can be used for measuring environmental impacts. Under SB 743, the focus of the environmental impacts of transportation shift from driver delay to reduction of greenhouse gas (GHG) emissions, creation of multimodal networks, and promotion of a mix of land uses, and LOS standards become local policy thresholds as adopted among individual agencies.

Currently official measures and significance thresholds are still being developed and have not yet been adopted under CEQA. Therefore automobile LOS is still used as a significance threshold for CEQA review. The traffic study prepared for the Froom Ranch Specific Plan analyses both multimodal LOS and VMT; however in the absence of official significance thresholds, no findings in regarding to vehicle miles traveled are made at this time.

City of San Luis Obispo General Plan

The City General Plan sets objectives and policies for all City resources. Those associated with the standards of streets and highways incorporated within the City are managed through the Circulation Element of the General Plan. The following Circulation Element policies and programs are relevant to the Project:

- *Policy 2.1.1. Multi-level Programs*: The City shall support County-wide and community-based efforts aimed at substantially reducing the number of vehicle trips and parking demand.
- *Policy 2.1.2. Flexible Work Schedules*: The City shall support flex time programs and alternative work schedules to reduce peak hour traffic demand.
- *Policy 2.1.3. Work-based Trip Reduction*: The City shall encourage employers within the City limits and work with the county to work with employers outside of the City limits to participate in trip reduction programs.
- *Policy 2.1.5. Long-term Measure*: The City shall support programs that reduce traffic congestion and maintain air quality. If air quality degrades below legal standards or LOS standards are exceeded, the City will pursue more stringent measures to achieve its transportation goals.
- *Policy 4.1.4. New Development*: The City shall require that new development provide bikeways, secure bicycle storage, parking facilities and showers consistent with City plans and development standards. When evaluating transportation impacts, the City shall use a MMLOS analysis.
- *Policy 6.1.1. Complete Streets*: The City shall design and operate City streets to enable safe, comfortable, and convenient access and travel for users of all abilities including pedestrians, bicyclists, transit users, and motorists.
- *Policy 6.1.2. Multimodal LOS Objectives, Service Standards, and Significance Criteria*: The City shall strive to achieve LOS objectives and shall maintain LOS minimums for all four modes of travel; Pedestrians, Bicyclists, Transit, & Vehicles.
- *Policy 6.1.3. Multimodal Priorities*: In addition to maintaining minimum LOSs, MMLOSs should be prioritized in accordance with the established modal priorities, such that construction, expansion, or alteration for one mode should not degrade the service level of a higher priority mode.
- *Policy 6.1.4. Defining Significant Circulation Impact*: Any degradation of the LOS shall be minimized to the extent feasible in accordance with the modal priorities established. If the LOS degrades below thresholds established in Policy 6.1.2, it shall be determined a significant impact for purposes of environmental review under CEQA. For roadways already operating below the established MMLOS standards, any further degradation to the MMLOS score will be considered a significant impact under CEQA.
    - Where a potential impact is identified, the City in accordance with the modal priorities established, can determine if the modal impact in question is adequately served through other means e.g., another parallel facility or like service. Based on this determination, a finding of no significant impact may be determined by the City.

- *Policy 6.1.5. Mitigation*: For significant impacts, developments shall be responsible for their fair share of any improvements required. Potential improvements for alternative mode may include, but are not limited to:
    - Pedestrian: Provision of sidewalk, providing or increasing a buffer from vehicular travel lanes, increased sidewalk clear width, providing a continuous barrier between pedestrians and vehicle traffic, improved crossings, reduced signal delay, traffic calming, no right turn on red, reducing intersection crossing distance.
    - Bicycle: Addition of a bicycle lane, traffic calming, provision of a buffer between bicycle and vehicle traffic, pavement resurfacing, reduced number of access points, or provision of an exclusive bicycle path, reducing intersection crossing distance.
    - Transit: For transit-related impacts, developments shall be responsible for their fair share of any infrastructural improvements required. This may involve provision of street furniture at transit stops, transit shelters, and/or transit shelter amenities, pullouts for transit vehicles, transit signal prioritization, provision of additional transit vehicles, or exclusive transit lanes.
- *Policy 6.1.6. City Review*: When new projects impact the existing circulation system, the City shall review the effectiveness and desirability of "direct fix" mitigation improvements to address MMLOS impacts. Where a significant impact is found, alternative system-wide project mitigations may be submitted for consideration to the City in accordance with the modal priorities established in Policy 6.1.2. Exceptions shall be based on the physical conditions of the right-of-way to support additional improvements. If the right-of-way in question cannot address on-site mitigation, appropriate off-site improvements that have direct nexus to and effectively address the specific impacts created by the project may be considered.
- *Policy 7.1.1. Peak Hour and Daily Traffic*: The City shall cooperate with County and State government to institute programs that reduce the levels of peak-hour and daily vehicle traffic.
- *Policy 7.1.2. Street Network*: The City shall manage to the extent feasible the street network so that the standards are not exceeded. This will require new development to mitigate the traffic impacts it causes or the City to limit development that affects streets where congestion levels may be exceeded. The standards may be met by strengthening alternative modes over the single occupant motor vehicle. Where feasible, roundabouts shall be the City's preferred intersection control alternative due to the vehicle speed reduction, safety, and operational benefits of roundabouts.
- *Policy 7.1.3. Growth Management & Roadway Expansion*: The City shall manage the expansion of roadways to keep pace with only the level of increased vehicular traffic associated with development planned for in the Land Use Element and under the City's growth management policies and regional transportation plans.

- *Policy 7.1.4. Transportation Funding*: In order to increase support for non-automobile travel, the City shall strive to allocate transportation funding across various modes approximately proportional to the modal split objectives for 2035 as shown in Table 1 [of the Circulation Element].
- *Policy 7.1.5. Vehicle Speeds*: To the extent permitted under the California Vehicle Code (CVC), the City shall endeavor to maintain and reduce speeds where possible in residential neighborhoods.
- *Policy 7.2.7. Traffic Access Management*: The City shall adopt an access management policy to control location, spacing, design and operation of driveways, median openings, crosswalks, interchanges and street connections to a particular roadway including navigation routes to direct traffic in a manner that preserves the safety and efficiency of the transportation system. Navigation routing and other smart access technologies should be considered as part of the update to the Access and Parking Management plan.
- *Policy 8.1.1. Through Traffic*: The City shall design its circulation network to encourage through traffic to use Regional Routes, Highways, Arterials, Parkway Arterials, and Residential Arterial streets and to discourage through traffic use of Collectors and Local streets.
- *Policy 8.1.2. Residential Streets*: The City should not approve commercial development that encourages customers, employees or deliveries to use Residential Local or Residential Collector streets.
- *Policy 8.1.3. Neighborhood Traffic Speeds*: To the extent permitted under the CVC, the City shall endeavor to reduce and maintain vehicular speeds in residential neighborhoods.
- *Policy 8.1.5. Neighborhood Traffic Management Guidelines*: The City shall update its Neighborhood Traffic Management Guidelines to address voting, funding, and implementation procedures and develop an outreach program on the availability of the program.
- *Policy 8.1.6. Non-Infill Development*: In new, non-infill developments, dwellings shall be set back from Regional Routes and Highways, Parkway Arterials, Arterials, Residential Arterials, and Collector streets so that interior and exterior noise standards can be met without the use of noise walls.
- *Program 9.2.2. Prado Road Improvements*: The City shall ensure that changes to Prado Road (Projects 1, 2, and 19 on Table 5) and other related system improvements are implemented in a sequence that satisfies circulation demands caused by area development.
    - The sponsors of development projects that contribute to the need for the Prado Road interchange or overpass (Project 19 on Table 5) will be required to prepare or fund the preparation of a Project Study Report for the interchange project. The Project Study Report shall meet the requirements of the California Department of Transportation.

- *Program 9.2.5. San Luis Ranch/Dalidio Development*: As part of any proposal to further develop the Dalidio-Madonna Area, the alignment and design of extensions of Froom Ranch Way connecting with Prado Road (west of US 101) shall be evaluated and established if consistent with the Agricultural Master Plan for Calle Joaquin Reserve.
- *Policy 11.1.1. Interstate Air Service*: The City shall support and encourage expansion of air transportation services, as forecasted in the Airport Master Plan and approved by the Federal Aviation Administration (FAA).
- *Policy 11.1.2. County Aircraft Operations*: The City shall work with the County to continue to address aircraft operations so that noise and safety problems are not created in developed areas or areas targeted for future development by the City's Land Use Element.
- *Policy 11.1.3. Public Transit Service*: The City shall encourage improved public transit service to the County airport soon as practical.

City of San Luis Obispo Bicycle Transportation Plan

The City of San Luis Obispo *Bicycle Transportation Plan (BTP; 2013)* was originally prepared and adopted by the City in 1985, and most recently updated in 2013, to improve and encourage bicycle and pedestrian transportation within the City. This plan works to establish a comprehensive design and development of bikeway facilities in compliance with State, County, and City regulations and policies. The City currently in the process of preparing an update to this plan, which will include pedestrian considerations and create the City's first Active Transportation Plan.

3.3 IMPACT ANALYSIS

3.3.1 Thresholds of Significance

As described in the CEQA checklist, transportation and traffic impacts would be considered potentially significant if:

1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
2. Conflict with an applicable congestion management program, including, but not limited to LOS standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);
5. Result in inadequate emergency access; and/or
6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The initial study conducted for the Project determined that the Project would not result in changes to air traffic patterns and would not result in adequate emergency access to the site. Therefore, Thresholds 3 and 5 are not discussed further in this section.

3.3.1.1 City of San Luis Obispo

City of San Luis Obispo LOS Policies by Mode

The City's General Plan Circulation Element includes LOS policies for all transportation modes. The City's stated goal is to maintain the LOS objective. However, if trips generated by a project causes the LOS to exceed the minimum LOS standard, a project is considered to cause an impact. **Table 3.1-41** presents the City's LOS objectives and standards, by mode.

Table 3.1-41 LOS Objective and Minimum Standard for Each Transportation Mode

Travel Mode	LOS Objective	Minimum LOS Standard	MMTIS Impact Threshold
Automobile	C	E (Downtown), D (Citywide)	D
Bicycle	B	D	D
Pedestrian	B	C	C
Transit	C	Baseline LOS or D	Baseline LOS or D

City of San Luis Obispo Modal Priority Impact Criteria

The City's Circulation Element has established priorities for various modes by context areas such that construction, expansion, or alteration of one mode should not degrade the LOS of a higher priority mode. If a project improves a lower priority mode's operation at the expense of a higher priority mode's operations, an impact is created. If a mitigation measure results in the degradation of higher priority mode, it would be considered a residual impact as well. The City's established Modal LOS Priorities by context area are presented in **Table 3.1-42**.

Table 3.1-42: City LOS Modal Priority Ranking by Area

Complete Street Area	Minimum LOS Standard	
Downtown & Upper Monterey Street	1. Pedestrians	3. Transit
	2. Bicycles	4. Vehicles
Residential Corridors & Neighborhoods	1. Pedestrians	3. Vehicles
	2. Bicycles	4. Transit
Commercial Corridors & Areas	1. Vehicles	3. Transit
	2. Bicycles	4. Pedestrians
Regional Arterial & Highway Corridors	1. Vehicles	3. Bicycles
	2. Transit	4. Pedestrians

City of San Luis Obispo Multimodal Impact Significance Thresholds

Consistent with the City's Multimodal Transportation Impact Study Guidelines the Project impacts will be considered significant if, when comparing "Plus Project" conditions with the base Existing, Near Term, and Cumulative conditions analyses, the Project causes the following to occur:

Automobiles: Intersections

At intersections within City or County jurisdiction, Project impacts are potentially significant if:

- Signalized Intersections: Project traffic causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards and the V/C ratio is increased by 0.01 or more.
- Unsignalized Intersections: Project traffic causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards, the V/C ratio is increased by 0.01 or more, and a traffic signal warrant analysis is satisfied.
- Project traffic causes or exacerbates 95th percentile turning movement queues exceeding available turn pocket capacity.
- The project proposes roadway geometry changes that cause minimum LOS standards to be exceeded or further degrades already exceeded LOS standards for the overall intersection or individual lane groups.

Automobiles: Segments

Project impacts are potentially significant if:

- Project traffic causes minimum LOS standards for either direction to be exceeded or further degrades already exceeded LOS standards and the average segment speed decreases by 1 mph or more.
- The project proposes roadway geometry changes that cause minimum LOS standards to be exceeded or further degrades already exceeded LOS standards.

Pedestrian, Bike, & Transit: Intersections & Segments

Project impacts are potentially significant if:

- Project traffic causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards and there is contextual significance to the impact.
- The project proposes roadway geometry changes that cause minimum LOS standards to be exceeded or further degrades already exceeded LOS standards.

City of San Luis Obispo Safety Impact Analysis Criteria

The MMTIS safety impact analysis includes both a quantitative and qualitative assessment. The safety analysis considers the project's potential operational and geometric effects on existing infrastructure, including turn pocket queue spillback and a

functional area analysis of proposed Project driveways. The safety analysis includes the following significant components, for which the Project impact will be evaluated in the "Plus Project" conditions analyses:

- Queuing evaluation at study intersections and Project driveways
- Qualitative assessment of safety issues/concerns at the project site access and within the internal project circulation system. Review preliminary layout for site access and circulation and provide qualitative assessment of safety issues (i.e. driveway spacing, access control, etc.).
- Quantitative review of collision history at selected locations:
    - County intersection at Los Osos Valley Road/Foothill Boulevard and County segment on South Higuera south of city limits
    - City intersection at Los Osos Valley Road/Auto Park Way and city segment on Los Osos Valley Road from Froom to Calle Joaquin will be included in the collision history analysis

The collision history analysis compares collision rates for these facilities to rates for comparable facilities. The Project impact will be evaluated based on whether the anticipated Project-generated traffic would affect any identified safety concerns. The Project site access and functional area evaluation will be prepared consistent with the City's *Access Management Policy*, which is included in the recently adopted 2018 City Engineering Standards.

City of San Luis Obispo Neighborhood Traffic Analysis Criteria

The proposed Project includes new local residential streets and commercial collector streets. The MMTIS will include an evaluation of neighborhood traffic conditions. Project impacts are considered significant if the maximum neighborhood ADT or speed thresholds established from the City's Circulation Element are exceeded.

The applicable ADT and speed thresholds established in the City's Circulation Element are as follows:

- Local Residential – maximum ADT is 1,500 vpd and maximum speed is 25 mph;
- Commercial Collector – maximum ADT is 10,000 vpd and maximum speed is 25 mph.

Vehicle Miles Traveled

Under Cumulative and Cumulative "Plus Project" conditions, a VMT analysis is provided that compares project VMT with citywide and county "per household" averages. Impact significance thresholds for VMT have not yet been established by the City or County.

3.3.1.2 Caltrans Facilities

Caltrans's policy endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities. For the purposes of this study, LOS C is considered the minimum automobile threshold for Caltrans facilities. Caltrans has not adopted LOS thresholds for bicycle, pedestrian, and transit modes; thus, multimodal LOS is not reported for Caltrans facilities in this study. Based on standard industry practice, the project is considered to trigger a significant impact to Caltrans facilities if the Project would:

- Result in a facility that will operate at an acceptable LOS in the base (pre-project or no project) condition to deteriorate to an unacceptable LOS in the "Plus Project" condition; or,
- *Freeway, Merge and Diverge Segments*: Project traffic increases the density in the by 5% or more at a facility that will operate at an unacceptable LOS in the base (pre-project or no project) condition.
- *Intersections*: Project traffic further degrades already exceeded LOS standards and the V/C ratio is increased by 0.01 or more.

3.3.1.3 County and Caltrans Impact Thresholds

The County has established a target of LOS D or better service on roadways in urban areas and LOS C on rural roads. For all County facilities included in this study, impact thresholds would be consistent with City thresholds for auto mode. The County has not adopted LOS thresholds for bicycle, pedestrian, and transit modes; thus, multimodal LOS is not reported for County facilities in this study.

3.3.2 Project Trip Generation

The Project's trip generation forecast considers many factors, including internal proximity between complimentary land uses, existing and future mode splits, the type of land use being proposed, and the average vehicle occupancy of automobiles. The trip generation estimate is based primarily on the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition* and *Trip Generation Handbook*, 3rd Edition. Because the MMTIS analyzes and quantifies impacts for all travel modes, a person trip generation was developed in addition to vehicular trip generation.

The following process was followed to ultimately determine estimated Project trips by mode as per the ITE guidance:

1. Generate New Vehicle Trip Estimate
2. Convert New Vehicle Trips to New Person Trips
3. Apply Internal Trip Capture Rates
4. Generate New External Person Trips Estimate
5. Apply Mode Split to Estimate New Bike, Pedestrian, Transit, and Vehicular Person Trips
6. Calculate External Vehicle Trips Using Average Vehicle Occupancy Data
7. Apply Pass-By / Link-Diverted Adjustments to Estimate Net New Vehicle Trips

3.3.2.1 Baseline Trip Generation Forecast

The trip generation methodology begins with an initial unadjusted trip generation forecast, based on vehicle trip generation rates contained in the ITE *Trip Generation Manual*, 10th Edition, without adjustment to account for local travel characteristics or the proposed mix of land uses. ITE vehicle trip generation rates are generally based on data collected at single-use sites with low rates of transit, bicycling and pedestrian travel. ITE rates are intended to be adjusted to account for local and site-specific characteristics (as described on the following pages that describe the adjustments to account for local travel modes and the proposed mix of land uses).

In addition to the ITE manual, the San Diego Association of Governments (SANDAG) *Brief Guide to Vehicular Traffic Generation Rates* manual was also referenced to provide an initial forecast of park trips, since the ITE manual park land use category lacks data for small parks, such as the one proposed as part of the Project. **Table 3.1-43** presents the preliminary, or baseline, vehicle trip generation estimate for the Project.

As shown in **Table 3.1-43**, the baseline vehicle trip generation forecast for the Project is 5,183 new daily vehicle trips, 279 a.m. peak hour vehicle trips, and 420 p.m. peak hour vehicle trips. This vehicle trip forecast does not include any internal trip capture between complimentary land uses, or any reduction for pass-by traffic for commercial land uses.

Table 3.1-43: Baseline Trip Generation Forecast

No	Description	Land Use (ITE Code)	Size		Daily		A.M. Peak						P.M. Peak					
					Rate	Trips	Rate	In %	Out %	In	Out	Total	Rate	In %	Out %	In	Out	Total
Madonna Froom Ranch																		
1	Multi-Family Housing	Multifamily Housing (Low-Rise) (220)[1]	174	units	7.32	1,274	0.46	23%	77%	19	62	81	0.56	63%	37%	62	36	98
2	Commercial	Shopping Center (820)[2]	30	ksf	37.75	1,133	0.94	62%	38%	18	11	29	3.81	48%	52%	56	59	115
3	Hotel	Hotel (310)[3]	120	rooms	8.36	1,004	0.47	59%	41%	34	23	57	0.60	51%	49%	37	35	72
4	Trailhead Park	Public Park (SANDAG)[4]	2.9	acres	50	145	6.5	50%	50%	10	9	19	4.5	50%	50%	7	7	14
	Subtotal					*3,556*				*81*	*105*	*186*				*162*	*137*	*299*
Life Plan Community																		
5	Independent Living	Senior Adult Housing - Attached (252)[5]	366	units	3.7	1,355	0.2	35%	65%	26	48	74	0.26	55%	45%	53	43	96
6	Assisted Living	Assisted Living (254)[6]	42	units (beds)	2.6	110	0.19	63%	37%	6	2	8	0.26	38%	62%	5	6	11
7	Memory Care	Assisted Living (254)[6]	17	beds	2.6	45	0.19	63%	37%	3	1	4	0.26	38%	62%	2	3	5
8	Skilled Nursing	Nursing Home (620)[7]	38	beds	3.06	117	0.17	72%	28%	6	1	7	0.22	33%	67%	3	6	9
9	Restaurants & Theaters	Internal Commercial[8]	15	ksf			Internal Use Only - No New External Trips											

No	Description	Land Use (ITE Code)	Size		Daily		A.M. Peak						P.M. Peak					
					Rate	Trips	Rate	In %	Out %	In	Out	Total	Rate	In %	Out %	In	Out	Total
10	Recreational Facility	Internal Recreational[8]	11	ksf			Internal Use Only - No New External Trips											
	Subtotal					*1,627*				*41*	*52*	*93*				*63*	*58*	*121*
Baseline Trip Generation Forecast						**5,183**				122	157	**279**				225	195	**420**

Notes:
Source: Vehicle trip generation based on Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017
[1]Multi Family Housing (ITE Land Use Code 220) vehicle trip rates are based upon number of dwelling units.
[2]Shoping Center (ITE Land Use Code 820) vehicle trip rates are based upon number of thousand square feet gross leasable area.
[3]Hotel (ITE Land Use Code 310) vehicle trip rates are based upon number of rooms.
[4]Brief Guide to Vehicular Traffic Generation Rates for the San Diego Region (2002), SANDAG
[5]Senior Adult Housing Attached (ITE Land Use Code 252) vehicle trip rates are based upon number of dwelling units.
[6]For Assisted Living and Memory Care (ITE Land Use Code 254 - Assisted Living) vehicle rates are based on of beds. Based on the information provided by the project applicant, trip generation considers four additional assisted living units (42 instead of the 38 actual beds proposed). Four additional assisted living units were considered for the analysis as limited number of assisted living units would allow dual occupancy (additional bed for able-bodied partner/family member of patient). All other assisted living units would be single occupancy.
[7]Skilled Nursing (ITE Land Use Code 620) vehicle trip rates are based upon number of beds.
[8]Non-residential uses in the Life Plan Community are for resident use only and would not generate any new trips outside the Project site.

3.3.2.2 Person Trip Forecast & Internal Trips

The ITE *Trip Generation Manual*, 10th Edition and *Trip Generation Handbook*, 3rd Edition provide data for vehicle occupancy and mode share for data collected by ITE and ITE contributors. This data provides an estimate of what the vehicle occupancy rates were for the uses collected in the manual, and what share of total patronage at the observed land uses arrived by car. Vehicle occupancy is provided directly within the *Trip Generation Manual*, 10th Edition while mode share is provided in Appendix Table B.1 and Appendix Table B.2 of the *Trip Generation Handbook*, 3rd Edition.

Internal Trip Reduction for Mixed-Use Site

Internal trip capture rates for the Project were developed utilizing the NCHRP 8-51 Internal Capture Estimate Tool, which is consistent with the ITE *Trip Generation Handbook*, 3rd Edition. Internal capture represents trips between individual uses within a larger mixed-use site. For example, trips between a hotel and adjacent retail store within the same site would be considered "internal" to the site, and should be excluded from project traffic generation estimates when analyzing potential impacts to off-site intersections and roadways. For this Project, all residential and commercial uses were considered in the internalization estimate, with the exception of uses within the Life Plan Community that are anticipated to have little-to-no trip-making interaction with other project components, such as the on-site restaurants and recreation facilities, Assisted Living, Memory Care and Skilled Nursing uses.

As shown in **Table 3.1-44**, after applying the vehicle occupancy rate, and after accounting for internal trip capture between complimentary uses, the Project is estimated to generate 344 new a.m. peak hour person trips, and 478 new p.m. peak hour person trips.

Table 3.1-44: Project Person Trip Generation Forecast

Land Use		A.M. Peak						P.M. Peak					
Description	Size	Baseline Vehicle Occupancy	Auto Mode %		Person Trips			Baseline Vehicle Occupancy	Auto Mode %		Person Trips		
			In %	Out %	In	Out	Total		In %	Out %	In	Out	Total
Madonna Froom Ranch													
Multi-Family Housing[1]	174	1.13	96%	98%	23	72	95	1.21	97%	96%	78	46	124
Commercial[2]	30	1.31	100%	100%	24	15	39	1.43	100 %	100%	81	85	166
Hotel[3]	120	1.31	93%	99%	48	31	79	1.26	99%	98%	48	45	93
Trailhead Park[1]	2.9	1.13	96%	98%	12	11	23	1.21	97%	96%	9	9	18
Subtotal					*107*	*129*	*236*				*216*	*185*	*401*
Life Plan Community													
Independent Living[1]	366	1.13	96%	98%	31	56	87	1.21	97%	96%	66	55	121
Assisted Living[1]	42	1.13	96%	98%	8	3	11	1.21	97%	96%	7	8	15
Memory Care[1]	17	1.13	96%	98%	4	2	6	1.21	97%	96%	3	4	7
Skilled Nursing[1]	38	1.13	96%	98%	8	2	10	1.21	97%	96%	4	8	12
Restaurants & Theaters[4]	15	Internal Use Only - No New External Trips											
Recreational Facility[4]	11	Internal Use Only - No New External Trips											
Subtotal					*51*	*63*	*114*				*80*	*75*	*155*
Total Person Trips Before Internalization					**158**	**192**	**350**				**296**	**260**	**556**
Internal Capture for Retail Uses					*-2*	*-1*	*-3*				*-10*	*-26*	*-36*
Internal Capture for Residential Uses					*-1*	*-1*	*-2*				*-22*	*-11*	*-33*
Internal Capture for Hotel Uses					*0*	*-1*	*-1*				*-7*	*-2*	*-9*
Total External Person Trips					**155**	**189**	**344**				**257**	**221**	**478**

Notes:
Source: Vehicle Occupancy Rates based on Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017
[1]Used Residential Vehicle Occupancy Rates
[2]Used Commercial Vehicle Occupancy Rates
[3]Used Hotel Vehicle Occupancy Rates
[4]No internal capture reduction is assumed for trips related to Assisted Living, Memory Care, Skilled Nursing, Restaurants & Theaters and Recreational Facility uses within the Life Plan Community, little trip-making is anticipated between these uses and the nearby Madonna Froom Ranch residential and commercial uses.

Mode Split Application

Based on the forecast of new person trips for the Project, the anticipated mode split was applied to the person trip forecast in order to predict what portion of the total trips would be by automobile, walking, bicycling, and transit. The mode split applied to the person trip forecast was based on the existing counts in the study area and on the average commute mode share rates for the city obtained from US Census American Community Survey (ACS 2012-2016) data. The mode split was then was applied to determine the number of vehicle trips generated by the proposed Project. Based on the existing counts and on the Census journey-to-work data, this analysis assumes that 88.2 percent of project trips would be via passenger auto, 2.2 percent would be via transit, 4.6 percent would be via bicycle and 5 percent would be via walking. **Table 3.1-45** presents Project person trip generation forecast by mode of travel.

Table 3.1-45: Project Person Trips by Mode of Travel

Land Use Category		A.M. Peak Person Trips			P.M. Peak Person Trips		
		In	Out	Total	In	Out	Total
Residential Person Trips		74	135	209	159	124	283
	Internal	*-1*	*-1*	-3	*-24*	*-14*	-37
	External Residential Person Trips	*73*	*134*	*206*	*135*	*110*	*246*
Retail Person Trips		24	15	39	81	85	166
	Internal	*-2*	*-1*	-3	*-10*	*-26*	-36
	External Retail Person Trips	*22*	*14*	*36*	*71*	*59*	*130*
External Hotel Person Trips		48	31	79	48	45	93
	Internal	*0*	*-1*	-1	*-7*	*-2*	-9
	External Hotel Person Trips	*48*	*30*	*78*	*41*	*43*	*84*
Park Person Trips		12	11	23	9	9	18
	Internal	*0*	*0*	*0*	*0*	*0*	*0*
	External Park Person Trips	*12*	*11*	*23*	*9*	*9*	*18*
Total Person Trips		158	192	350	297	263	560
	Internal	-3	-3	-7	-41	-42	-83
	Total External Person Trips	155	189	**343**	256	221	**477**
External Person Trip Mode Split							
Mode	**Share**	**A.M. Peak Person Trips**			**P.M. Peak Person Trips**		
Passenger Auto	88.20%	137	167	304	225	195	420
Bicycle	4.60%	7	9	16	12	10	22
Pedestrian	5.00%	8	9	17	13	11	24
Transit	2.20%	3	4	7	6	5	11
Total (All Modes)	**100%**	155	189	**343**	256	221	**477**

Notes: Total number of a.m. peak hour trips do not add up due to rounding errors in calculations.

As shown in **Table 3.1-45**, after applying the mode split percentages observed in the Project study area under current conditions, the Project is anticipated to generate 343 a.m. peak hour person trips that will utilize automobiles and 477 p.m. peak hour person trips via automobiles. The Project is anticipated to generate 16 external bicycle trips in the a.m. and 22 in the p.m. peak hour, 17 and 24 a.m. and p.m. peak hour external pedestrian trips, respectively, and 7 and 11 a.m. and p.m. peak hour transit trips.

Vehicle Occupancy Application

Using an average citywide vehicle occupancy rate of 1.38 passengers per vehicle, as documented in the City's Travel Demand Model documentation (based on the 2000-2001 Statewide Travel Survey for City of San Luis Obispo), project person trip estimates for automobile mode were converted to equivalent net new external vehicle trips.

3.3.2.3 Project Vehicle Trip Generation Forecast

Based on the project person trip forecast, mode split and vehicle occupancy rates, the project vehicle trip generation forecast was prepared, in order to quantify the expected volume of external vehicle trips that would be generated by the proposed Project.

For purposes of forecasting the net increase in vehicle trips that would result from the Project, a pass-by adjustment was also applied to the commercial land uses in the Madonna Froom Ranch component of the Project. Pass-by trips are vehicle trips that are already on the roadway system and stop at a destination along their existing route out of convenience. Using the Project as an example, a pass-by trip would be a driver who is already traveling on Los Osos Valley Road and stops at a new commercial use at the Madonna Froom Ranch site along their route. This trip is a new "project trip", but should not be counted as a new vehicle trip added to the surrounding roadway network. This pass-by rate was based the ITE Trip Generation Handbook, 3rd Edition.

As shown in **Table 3.1-46**, the Project is forecasted to generate 220 a.m. and 277 p.m. net new peak hour vehicle trips on the surround road network. It should be noted that these final external auto volumes are the basis for the Project auto LOS analyses.

Table 3.1-46: External Vehicle Trip Generation Forecast

Land Use Category		A.M. Peak			P.M. Peak		
		Person Trips			Person Trips		
		In	Out	Total	In	Out	Total
External Residential Passenger Auto Person Trips		64	118	181	119	97	217
External Retail Passenger Auto Person Trips		20	12	32	61	51	112
External Hotel Passenger Auto Person Trips		43	27	70	36	37	73
External Park Passenger Auto Person Trips		10	10	20	9	9	18
Total External Passenger Auto Person Trips		*137*	*167*	***303***	*225*	*194*	***419***
Average San Luis Obispo Vehicle Occupancy (Persons per Car):							**1.38**
Mode	**Share**	**A.M. Peak**			**P.M. Peak**		
		Vehicle Trips			**Vehicle Trips**		
Residential Vehicle Trips Generated		45	85	131	86	71	157
Retail Vehicle Trips Generated		15	9	24	44	37	81
	Retail Pass-By Trips				*-15*	*-13*	*-28*
Hotel Vehicle Trips Generated		31	20	51	26	27	53
Park Vehicle Trips Generated		7	7	14	7	7	14
Total Vehicle Trips Generated		99	121	**220**	148	129	**277**

3.3.2.4 External Project Trip Generation by Phase

As per the information provided by the project applicant, the project would be constructed in following four phases between 2020 and 2024 to allow for Project completion and full occupancy in 2025. Phases would be timed and ordered to provide services within the Project site to support development and eventual occupation. These phases are expected to overlap periodically. At the time of construction, each phase would be subject to permit review to ensure conformity with the approved FRSP and consistency with applicable regulations. Each phase would include specifications to address the development activities to be performed during the phase and define specific mitigation measures and best management practices that would apply.

- Phase 1 – Installation of Project Infrastructure and Stormwater Management System
- Phase 2 – Development of Villagio Lower Areas
- Phase 3 – Development of Villagio Upper Terrace
- Phase 4 – Development of Madonna Froom Ranch

Project trip generation was also developed for the above four construction phases for sensitivity analysis to identify phasing impacts of the Project at the study intersections and the roadway segments. As Phase 1 phase includes only infrastructure improvements, the project is not expected to generate any a.m. or p.m. peak hour trips (outside of temporary construction traffic). During Phase 2, the Project is estimated to generate 66

a.m. and 87 p.m. peak hour external vehicle trips. During Phase 3, the Project is estimated to generate 74 a.m. and 99 p.m. peak hour external vehicle trips. During Phase 4, the Project is estimated to generate 220 a.m. and 277 p.m. peak hour vehicle trips. **Table 47** summarizes Project trip generation for the four construction phases.

Table 3.1-47 – Project Vehicle Trip Generation for Phases

Phase	Trips Applicable to Phase		Cumulative Total for Completed Phases	
	AM	PM	AM	PM
Phase 1 (0%)	0	0	0	0
Phase 2 (27%)	66	87	66	87
Phase 3 (5%)	8	12	74	99
Phase 4 (69%)	146	178	**220**	**277**

3.3.2.5 Project Trip Distribution and Assignment

The Project trip distribution for automobile, pedestrian, bicycle, and transit trips was estimated based on conducting a select zone analysis of the traffic analysis zone (TAZ) representing the Project area in the City's travel demand model. The City's travel demand model land uses for the TAZ were modified to include the specific proposed Project land uses. The Project trip distribution was developed for Existing, Near Term and Cumulative analysis scenarios based on transportation infrastructure anticipated to be in place in those scenarios (i.e. Prado Road Interchange, Prado Road Extension to Broad, etc.). **Figure 3.1-12** shows Project trip distribution pattern for Existing plus Project conditions. **Figure 3.1-13** shows Project trip assignment for Existing plus Project conditions.

New transit trips were assigned to the adjacent transit stops at the Los Osos Valley Road and Auto Mall Drive intersection and at the Irish Hills Plaza shopping center. New bicycle trips were assigned to new and existing bike trails, and adjacent roadway facilities with bicycle lanes. New pedestrian trips were assigned to adjacent sidewalks, crosswalks, and shared-use paths. New vehicular trips were assigned to the street network using the single proposed access point on Los Osos Valley Road and were assigned to routes to reach their destinations based on the shortest logical path.

3.3.3 Existing Plus Project Conditions MMLOS Analysis

Using vehicle trip generation and distribution data, the TIS analyzed the multi-modal transportation effects of the Project on roadway segments and intersections. The intersection LOS and queuing results are provided in **Table 3.1-48** through **Table 3.1- 51** below. **Table 3.1-52** through **Table 3.1-55** provides a summary of the multimodal a.m. and p.m. peak hour segment LOS under Existing plus Project conditions. Existing conditions were compared with Existing plus Project conditions to determine the degree of change projected for each of the intersections and roadway segments. The Existing plus Project LOS was also compared with City thresholds to determine where significant impacts may occur as a result of Project implementation. A description of the LOS and queuing results is provided below. **Figure 3.1-14** shows the Existing plus Project lane geometries and traffic controls at the study intersections. **Figure 3.1-15** shows the

Existing plus Project peak hour traffic volumes at the study intersections. Detailed Synchro LOS worksheets are included in **Appendix A.**

Table 3.1-48: Existing plus Project Intersection LOS – Automobile Analysis

ID	Study Intersections	LOS Target (Control)	Peak Hour	Existing Conditions			Existing Plus Project			
				Delay[1]	LOS[2]	V/C[3]	Delay[1]	LOS[2]	V/C[3]	Net V/C
1	Los Osos Valley Road & Foothill Boulevard	D (Signal)	AM	23.9	C		24.3	C		
			PM	37.0	D		38.5	D		
2	Los Osos Valley Road & Prefumo Canyon Road	D (TWSC)	AM	18.7	C		19.0	C		
			PM	20.9	C		21.4	C		
3	Los Osos Valley Road & Laguna Lane	D (Signal)	AM	13.7	B		13.8	B		
			PM	8.2	A		8.3	A		
4	Los Osos Valley Road & Oceanaire Drive	D (TWSC)	AM	**52.5**	**F**	**0.57**	**60.0**	**F[7]**	**0.64**	**0.07**
			PM	**42.2**	**E**	**0.42**	**45.6**	**E[7]**	**0.46**	**0.04**
5	Los Osos Valley Road & Royal Way	D (Signal)	AM	34.8	C		35.1	D		
			PM	17.6	B		17.7	B		
6	Los Osos Valley Road & Madonna Road	D	AM	37.4	D		38.4	D		
			PM	37.7	D		38.3	D		
7	Los Osos Valley Road & Froom Ranch Way	D	AM	19.5	B		19.7	B		
			PM	35.3	D		36.7	D		
8	Los Osos Valley Road & Auto Park Way[5]	D	AM	14.6	B		7.8	A		
			PM	**37.1**	**E**	**0.52**	14.3	B	0.22	-0.30
9	Los Osos Valley Road & Calle Joaquin	D	AM	5.3	A		5.2	A		
			PM	7.0	A		7.0	A		
10	Los Osos Valley Road & US 101 SB Ramps	C	AM	12.2	B		12.0	B		
			PM	12.9	B		18.4	B		
11	Los Osos Valley Road & US 101 NB Ramps	C	AM	23.4	C		23.3	C		
			PM	23.5	C		21.6	C		
12	Los Osos Valley Road & S. Higuera Street	D	AM	13.5	B		13.8	B		
			PM	14.4	B		15.4	B		
13	S. Higuera Street & Vachelle Lane	D	AM	**67.8**	**F**	**0.84**	**86.6**	**F**	**0.96**	**0.12**
			PM	**43.8**	**E**	**0.81**	**58.6**	**F**	**0.96**	**0.15**
14	S. Higuera Street & Suburban Road	D	AM	5.9	A		5.9	A		
			PM	11.2	B		11.5	B		
15	S. Higuera Street & Tank Farm Road	D	AM	22.2	C		22.4	C		
			PM	27.7	C		28.5	C		
16	S. Higuera Street & Prado Road	D	AM	18.5	B		18.7	B		
			PM	28.9	C		29.5	C		

ID	Study Intersections	LOS Target (Control)	Peak Hour	Existing Conditions			Existing Plus Project			
				Delay[1]	LOS[2]	V/C[3]	Delay[1]	LOS[2]	V/C[3]	Net V/C
17	Prado Road/US 101 NB Ramps & Elks Lane	C	AM	9.1	A		9.1	A		
			PM	13.5	B		13.5	B		
18	Madonna Road & Oceanaire Drive[6]	D	AM	39.3	D		39.8	D		
			PM	27.2	C		26.5	C		
19	Madonna Road & Dalidio Drive	D	AM	19.9	B		20.1	C		
			PM	53.2	D		53.2	D		
20	Madonna Road & US 101 SB Ramps/Madonna Inn	C	AM	30.7	C		30.8	C		
			PM	31.7	C		32.0	C		
21	Madonna Road & US 101 NB Ramps	C	AM	14.7	B		14.9	B		
			PM	32.4	C		33.8	C		
24	Collector A & Collector B (on-site)	D	AM	-	-	-	3.4	A		-
			PM	-	-	-	3.6	A		-

Notes:
[1]Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.
[2]LOS – Levels of Service
[3] Volume-to-capacity ratio reported for worst movement only.
[5]Los Osos Valley Road & Auto Parkway intersection analyzed as signalized under Existing plus Project Conditions
[6]HCM 6th Methodology does not support intersections with more than four approaches. Hence HCM 2000 Methodology used for intersection 18
[7]Impact is less than significant because signalization is not warranted.
Bold indicates unacceptable operations.

As shown in **Table 3.1-48**, under Existing plus Project Conditions the project would further degrade LOS that operates unacceptably under Existing Conditions, would increase v/c by more than 0.01, and satisfy signal warrants at the following intersection that exceed the City's minimum automobile LOS under Existing Conditions, thus resulting in potentially significant impact:

- South Higuera Street and Vachell Lane, during a.m. and p.m. peak hours

Los Osos valley road and Oceanaire Drive is not considered a significant auto LOS impact as signal warrants are not met at the intersection though the intersection fails during both the a.m. and the p.m. peak hours.

Table 3.1-49: Existing plus Project Intersection LOS – Pedestrian Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	C	1.75	B	1.75	B
		WB	C	2.45	B	2.40	B
		NB	C	2.71	C	2.76	C
		SB	C	2.75	C	2.88	C
2	Los Osos Valley Road & Prefumo Canyon Road[1]	EB	C	n/a			
		WB	C				
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	**>5.0**	**F**	**>5.0**	**F**
3	Los Osos Valley Road & Laguna Lane	EB	C	n/a			
		WB	C	2.39	B	2.22	B
		NB	C	2.83	C	2.80	C
		SB	C	2.88	C	2.99	C
4	Los Osos Valley Road & Oceanaire Drive[1]	EB	C	n/a			
		WB	C				
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	**>5.0**	**F**	**>5.0**	**F**
5	Los Osos Valley Road & Royal Way	EB	C	2.01	B	2.01	B
		WB	C	2.00	B	1.98	B
		NB	C	3.10	C	3.12	C
		SB	C	3.09	C	3.11	C
6	Los Osos Valley Road & Madonna Road	EB	C	2.13	B	2.14	B
		WB	C	2.97	C	3.05	C
		NB	C	3.00	C	3.17	C
		SB	C	3.37	C	3.41	C
7	Los Osos Valley Road & Froom Ranch Way	EB	C	2.13	B	2.64	C
		WB	C	2.97	C	2.44	B
		NB	C	3.00	C	3.24	C
		SB	C	3.37	C	3.22	C
8	Los Osos Valley Road & Auto Park Way	EB	C	2.33	B	2.35	B
		WB	C	1.98	B	2.01	B
		NB	C	2.95	C	3.21	C
		SB	C	2.92	C	3.18	C
9	Los Osos Valley Road & Calle Joaquin	EB	C	2.48	B	2.48	B
		WB	C	2.09	B	2.09	B
		NB	C	3.13	C	3.39	C
		SB	C	3.00	C	3.26	C
10	Los Osos Valley Road & US 101 SB Ramps	EB	C	1.91	B	2.23	B
		WB	C	2.26	B	2.22	B
		NB	C	2.93	C	3.07	C
		SB	C	2.99	C	3.32	C
11	Los Osos Valley Road & US 101 NB Ramps	EB	C	2.47	B	2.56	C
		WB	C	1.43	A	1.43	A
		NB	C	2.81	C	2.84	C
		SB	C	2.93	C	3.04	C

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
12	Los Osos Valley Road & S. Higuera Street	EB	C	2.73	C	2.77	C
		WB	C	n/a			
		NB	C	2.30	B	2.36	B
		SB	C	2.79	C	2.85	C
13	S. Higuera Street & Vachelle Lane[1]	EB	C	n/a	n/a	n/a	n/a
		WB	C	n/a	n/a	n/a	n/a
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	n/a	n/a	n/a	n/a
14	S. Higuera Street & Suburban Road	EB	C	n/a			
		WB	C	2.18	B	2.25	B
		NB	C	2.95	C	3.08	C
		SB	C	2.73	C	2.86	C
15	S. Higuera Street & Tank Farm Road	EB	C	2.03	B	2.04	B
		WB	C	2.95	C	3.04	C
		NB	C	3.31	C	3.49	C
		SB	C	2.69	C	2.98	C
16	S. Higuera Street & Prado Road	EB	C	2.46	B	2.58	C
		WB	C	2.38	B	2.45	B
		NB	C	2.73	C	2.98	C
		SB	C	2.76	C	2.90	C
17	Prado Road/US 101 NB Ramps & Elks Lane	EB	C	n/a			
		WB	C				
		NB	C				
		SB	C				
18	Madonna Road & Oceanaire Drive	EB	C	2.74	C	2.89	C
		WB	C	3.21	C	3.29	C
		NB	C	2.00	B	2.00	B
		SB	C	2.03	B	1.95	B
		SE	C	1.74	B	1.73	B
		NE	C	1.76	B	1.73	B
19	Madonna Road & Dalidio Drive	EB	C	3.00	C	3.14	C
		WB	C	3.02	C	3.12	C
		NB	C	2.07	B	2.13	B
		SB	C	1.99	B	2.00	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	C	2.96	C	3.11	C
		WB	C	3.01	C	3.03	C
		NB	C	2.81	C	2.84	C
		SB	C	2.17	B	2.19	B
21	Madonna Road & US 101 NB Ramps	EB	C	2.96	C	2.98	C
		WB	C	2.79	C	2.80	C
		NB	C	1.99	B	2.02	B
		SB	C	2.09	B	2.12	B

Notes:
[1]For unsignalized AWSC intersections, pedestrian delay is reported as pedestrian LOS methodology is not supported for crosswalks that intersect stop-sign controlled approaches. For unsignalized TWSC intersections, pedestrian LOS methodology is limited to the uncontrolled crossings.

As shown on **Table 3.1-49**, under Existing plus Project conditions the Project would exacerbate failing intersection LOS for pedestrians at the following intersections:

- Los Osos Valley Road & Oceanaire Drive (#4): this side-street stop-sign controlled intersection operates with unacceptable intersection LOS for pedestrians due to the uncontrolled crossing of four motor vehicle lanes across Los Osos Valley Road. While Project traffic would exacerbate the unacceptable pedestrian LOS, this impact is considered to be less than significant given the contextual location and characteristics. There is very little existing pedestrian crossing demand – just one or two pedestrian crossings per hour, despite proximity to adjacent bus stops. Therefore, warrants for installation of a marked pedestrian crossing or enhanced crossing device (i.e. signal or pedestrian hybrid beacon) are unlikely to be met even if considering latent crossing demand, existing signalized crossings are present within one block to the north (Laguna Ln.) or south (Royal Way).
- Los Osos Valley Road & Prefumo Canyon Road (#2): this side-street stop-sign controlled intersection operates with unacceptable intersection LOS for pedestrians due to the uncontrolled crossing of four motor vehicle lanes across Los Osos Valley Road. This impact is less than significant given the contextual location: no land uses are directly accessible on the east side of Los Osos Valley Road near this intersection, thus potential demand for pedestrian crossings is low.
- S. Higuera Street & Vachelle Street (#13): this side-street stop-sign controlled intersection operates with unacceptable intersection LOS for pedestrians due to the uncontrolled crossing of four motor vehicle lanes across S. Higuera Street. This impact is less than significant given the contextual location: no land uses are directly accessible on the north side of Higuera Street immediately adjacent to this intersection, thus potential demand for pedestrian crossings is low.

Table 3.1-50: Existing plus Project Intersection LOS – Bicycle Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	D	2.71	C	2.71	C
		WB	D	3.28	C	3.93	D
		NB	D	2.79	C	3.05	C
		SB	D	2.57	C	1.90	B
3	Los Osos Valley Road & Laguna Lane	EB	D	n/a			
		WB	D	3.27	C	2.81	C
		NB	D	1.91	B	2.23	B
		SB	D	1.45	A	1.30	A
5	Los Osos Valley Road & Royal Way	EB	D	3.13	C	2.96	C
		WB	D	3.30	C	2.94	C
		NB	D	2.68	C	3.02	C
		SB	D	2.21	B	1.89	B
6		EB	D	3.38	C	3.22	C

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
	Los Osos Valley Road & Madonna Road	WB	D	3.65	D	4.31	D
		NB	D	1.68	B	2.10	B
		SB	D	2.81	C	2.48	B
7	Los Osos Valley Road & Froom Ranch Way	EB	D	3.44	C	4.29	D
		WB	D	2.05	B	2.35	B
		NB	D	1.80	B	2.11	B
		SB	D	1.73	B	1.79	B
8	Los Osos Valley Road & Auto Park Way	EB	D	2.89	C	2.90	C
		WB	D	2.94	C	2.91	C
		NB	D	2.97	C	3.52	D
		SB	D	3.33	C	3.59	D
9	Los Osos Valley Road & Calle Joaquin	EB	D	3.07	C	3.01	C
		WB	D	3.13	C	3.21	C
		NB	D	1.63	B	2.05	B
		SB	D	1.84	B	0.78	A
10	Los Osos Valley Road & US 101 SB Ramps	EB	D	n/a			
		WB	D	2.76	C	2.62	C
		NB	D	1.71	B	2.19	B
		SB	D	1.59	B	1.94	B
11	Los Osos Valley Road & US 101 NB Ramps	EB	D	3.76	D	3.80	D
		WB	D	1.39	A	1.39	A
		NB	D	1.77	B	2.10	B
		SB	D	2.28	B	2.24	B
12	Los Osos Valley Road & S. Higuera Street	EB	D	1.90	B	1.66	B
		WB	D	n/a			
		NB	D	1.97	B	1.75	B
		SB	D	2.27	B	3.31	C
14	S. Higuera Street & Suburban Road	EB	D	n/a			
		WB	D	1.21	A	1.94	B
		NB	D	2.24	B	1.95	B
		SB	D	1.98	B	2.39	B
15	S. Higuera Street & Tank Farm Road	EB	D	2.71	C	2.71	C
		WB	D	3.65	D	**4.59**	**E**
		NB	D	2.03	B	2.16	B
		SB	D	1.78	B	2.21	B
16	S. Higuera Street & Prado Road	EB	D	2.48	B	2.34	B
		WB	D	2.84	C	3.51	D
		NB	D	1.68	B	2.34	B
		SB	D	1.96	B	1.91	B
18	Madonna Road & Oceanaire Drive	EB	D	2.78	C	2.83	C

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
		WB	D	1.27	A	1.77	B
		NB	D	2.82	C	2.79	C
		SB	D	2.70	C	2.22	B
		SE	D	2.62	C	2.62	C
		NE	D	2.20	B	2.20	B
19	Madonna Road & Dalidio Drive	EB	D	2.16	B	2.05	B
		WB	D	1.59	B	1.95	B
		NB	D	3.05	C	3.28	C
		SB	D	2.87	C	2.95	C
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	D	1.95	B	2.01	B
		WB	D	1.62	B	1.92	B
		NB	D	3.70	D	3.66	D
		SB	D	2.94	C	2.99	C
21	Madonna Road & US 101 NB Ramps	EB	D	2.73	C	2.31	B
		WB	D	1.59	B	2.06	B
		NB	D	2.25	B	2.33	B
		SB	D	n/a			

Notes:
Bicycle LOS summary excludes unsignalized intersections and locations where no bicycle facilities are provided as HCM 6th Bike LOS Methodology do not model segments bounded by unsignalized intersections.

As shown in **Table 3.1-50**, under Existing plus Project Conditions the project causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards for bicycle LOS at intersections:

- S. Higuera Street & Tank Farm Road in the northbound direction during p.m. peak hour

Table 3.1-51: Existing plus Project Conditions – 95th Percentile Queuing Analysis

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Existing Conditions	Existing plus Project	Change in Queue
1	Los Osos Valley Road/Foothill Boulevard	WBR	180	AM	0	0	0
				PM	0	0	0
		NBL	120	AM	0	0	0
				PM	5	15	10
		NBR	370	AM	35	35	0
				PM	120	120	0
		SBL	490	AM	#485	#490	5
				PM	#248	#248	0
3	Los Osos Valley Road/Laguna Lane	WBL	Trap Lane	AM	90	90	0
				PM	40	40	0
		WBR	Trap Lane	AM	0	0	0
				PM	0	0	0
		NBR	80	AM	10	10	0
				PM	35	35	0
		SBL	120	AM	45	45	0
				PM	25	25	0
5	Los Osos Valley Road/Royal Way	EBR	70	AM	10	10	0
				PM	0	0	0
		WBR	70	AM	0	0	0
				PM	0	0	0
		NBL	110	AM	25	25	0
				PM	60	60	0
		SBL	160	AM	15	15	0
				PM	15	15	0
		SBR	50	AM	0	0	0
				PM	0	0	0
6	Los Osos Valley Road/Madonna Road	EBL	230	AM	**#255**	**#255**	**0**
				PM	#145	#145	0
		WBL	Trap Lane	AM	70	80	10
				PM	190	195	5
		WBR	170	AM	45	45	0
				PM	75	75	0
		NBL	200	AM	70	70	0
				PM	140	145	5
		NBR	175	AM	35	35	0
				PM	50	50	0
		SBL	350	AM	#330	#335	5
				PM	185	185	0
7		EBL	250	AM	60	60	0

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Existing Conditions	Existing plus Project	Change in Queue
	Los Osos Valley Road/Froom Ranch Way			PM	#240	#245	5
		WBL	295	AM	75	80	5
				PM	195	205	10
		WBR	50	AM	0	0	0
				PM	45	45	0
		NBL	300	AM	110	110	0
				PM	255	255	0
		SBL	160	AM	30	30	0
				PM	100	100	0
8	Los Osos Valley Road/Auto Parkway (Project Driveway)	EBL	100	AM	-	40	-
				PM	-	55	-
		EBR	100	AM	-	0	-
				PM	-	20	-
		WBL	Trap Lane	AM	-	20	-
				PM	-	60	-
		WBR	175	AM	-	0	-
				PM	-		-
		NBL	200	AM	-	30	-
				PM	-	50	-
		SBL	100	AM	-	30	-
				PM	-	40	-
		SBR	100	AM	-	5	-
				PM	-	15	-
9	Los Osos Valley Road/Calle Joaquin	EBL	260	AM	25	25	0
				PM	35	35	0
		EBR	260	AM	10	10	0
				PM	10	10	0
		WBL	100	AM	50	50	0
				PM	**105**	**105**	**0**
		NBL	130	AM	10	m10	0
				PM	m5	m5	0
		NBR	130	AM	20	20	0
				PM	m5	m5	0
		SBL	120	AM	20	20	0
				PM	10	10	0
		SBR	120	AM	0	0	0
				PM	5	5	0
10	Los Osos Valley Road/US 101 SB Ramps	WBR	190	AM	110	130	20
				PM	**245**	**260**	**15**
		NBL	220	AM	m25	m25	0
				PM	m60	m60	0

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Existing Conditions	Existing plus Project	Change in Queue
		SBR	120	AM	50	75	25
				PM	**#220**	**#250**	**30**
		EBL	610	AM	290	295	5
				PM	#330	#350	0
11	Los Osos Valley Road/US 101 NB Ramps	NBL	400	AM	75	75	0
				PM	120	120	0
		SBR	133	AM	m0	0	0
				PM	0	0	0
12	Los Osos Valley Road/S. Higuera Street	EBL	Trap Lane	AM	#315	#340	25
				PM	215	235	20
		EBR	100	AM	40	40	0
				PM	40	45	5
		NBL	200	AM	15	15	0
				PM	20	20	0
		SBR	Trap Lane	AM	65	75	10
				PM	200	230	30
14	S. Higuera Street/Suburban Road	WBL	170	AM	80	80	0
				PM	**270**	**290**	**20**
		WBR	Trap Lane	AM	30	30	0
				PM	70	75	5
		SBL	170	AM	25	25	0
				PM	25	25	0
15	S. Higuera Street/Tank Farm Road	EBR	Trap Lane	AM	0	0	0
				PM	0	0	0
		WBL	Trap Lane	AM	165	170	5
				PM	340	345	5
		WBR	250	AM	55	55	0
				PM	180	185	5
		NBL	140	AM	40	40	0
				PM	55	55	0
		NBR	100	AM	85	85	0
				PM	30	35	5
		SBL	165	AM	**#410**	**#420**	**10**
				PM	**#760**	**#760**	**0**
16	S. Higuera Street/ Prado Road	EBL	Trap Lane	AM	60	60	0
				PM	75	75	0
		EBR	100	AM	15	15	0
				PM	20	20	-
		WBL	105	AM	70	70	0
				PM	120	125	5
		WBR	200	AM	0	0	0

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Existing Conditions	Existing plus Project	Change in Queue
				PM	15	15	0
		NBL	100	AM	**195**	**200**	**5**
				PM	**#525**	**#540**	**15**
		SBL	200	AM	**#210**	**215**	**5**
				PM	110	110	0
18	Madonna Road/Oceanaire Drive	EBL	115	AM	40	40	0
				PM	40	45	5
		WBL	115	AM	#55	#55	0
				PM	**#155**	**#155**	**0**
		WBR	100	AM	0	0	0
				PM	0	0	0
		NBR	50	AM	0	0	0
				PM	0	0	0
19	Madonna Road/Dalidio Drive	EBL	120	AM	40	40	0
				PM	55	55	0
		WBL	280	AM	70	70	0
				PM	150	150	0
		NBR	150	AM	10	10	0
				PM	45	45	0
		SBR	50	AM	0	0	0
				PM	0	0	0
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EBL	100	AM	50	50	0
				PM	55	55	0
		WBL	260	AM	145	145	0
				PM	m#215	m#215	0
		NBL	Trap Lane	AM	185	185	0
				PM	#425	#425	0
		NBR	275	AM	125	125	0
				PM	25	25	0
		SBL	Trap Lane	AM	20	20	0
				PM	30	30	0
		SBR	100	AM	0	0	0
				PM	0	0	-
21	Madonna Road/US 101 NB Ramps	EBL	435	AM	125	125	0
				PM	#295	#295	0
		NBL	185	AM	90	90	0
				PM	180	180	0

Notes:
Queue length rounded to nearest five feet. Queuing analysis is reported for signalized intersections only.
Bold: 95th percentile volume exceeds capacity.
m queue is metered by upstream intersection.
95th percentile queue exceeds capacity

Trap - denotes design where the thru-lane terminates in a turn-lane.
Westbound thru-lane (WBL); Westbound right-turn lane (WBR); Eastbound thru-lane (EBL); Northbound thru-lane (NBL); Northbound right-turn lane (NBR); Northbound trap (NBT); Southbound thru-lane (SBL); Southbound trap (SBT); Southbound right-turn lane (SBR)

As shown in **Table 3.1-51**, the addition of Project traffic would exacerbate 95th percentile turning movement queues that exceed lane capacity during a.m. or p.m. peak hours at the following intersections under Existing plus Project conditions:

- Los Osos Valley Road and Calle Joaquin (WBL during p.m. peak hour)
- Los Osos Valley Road and US 101 SB Ramps (SBR and WBR during p.m. peak hour)
- South Higuera Street and Suburban Street (WBL during p.m. peak hours)
- S Higuera Street and Tank Farm Road (SBL during p.m. peak hour)
- South Higuera Street and Prado Road (NBL during both the a.m. and p.m. peak hour and SBL during a.m. peak hour)

Table 3.1-52 through **Table 3.1-55** provides a summary of the multimodal a.m. and p.m. peak hour segment LOS under Existing plus Project conditions.

As shown in **Table 3.1-52**, under Existing plus Project conditions the Project would not further degrade already exceeded LOS standards and decrease the average speed by 1 mph or more that exceed City's minimum automobile LOS threshold, thus resulting in a potentially significant impact.

As shown in **Table 3.1-53**, under Existing plus Project conditions the Project would further degrade already exceeded LOS standards that exceed the City's minimum pedestrian LOS threshold, thus resulting in a potentially significant impact at the following locations:

- Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive operates at LOS D during a.m. in the southbound direction and in the p.m. peak hour during northbound direction.
- Los Osos Valley Road from Oceanaire Drive to Madonna Road operates at LOS D during a.m. peak hour in the southbound direction.
- Los Osos Valley Road from Madonna Road to Froom Ranch Way operates at LOS F during a.m. peak hour and p.m. peak hours in the northbound direction.
- Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps operates at LOS D during a.m. peak hour in the southbound direction and operates at LOS D during a.m. and p.m. peak hours in the northbound direction.
- Los Osos Valley Road from US 101 NB Ramps to South Higuera Street operates at LOS D during a.m. and p.m. peak hours in the southbound direction and during a.m. peak hour in the northbound direction.
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS D during p.m. peak hours in the southbound direction.

- South Higuera Street from Tank Farm Road to Prado Road operates at LOS F during a.m. and p.m. peak hours in the southbound direction.
- Madonna Road from Los Osos Valley Road to Dalidio Drive operates at LOS F during a.m. and p.m. peak hour in the eastbound direction and at LOS D in the p.m. peak hour during westbound direction.

Due to the proximity of the Bob Jones Trail, which provides a low-stress route for pedestrians parallel to South Higuera between Los Osos Valley Road and Prado Road, the pedestrian impacts to segments of South Higuera Street are not considered to be contextually significant.

As shown in **Table 3.1-54** and **Table 3.1-55**, under Existing plus Project conditions the Project would not cause minimum LOS standards to be exceeded that exceed City's minimum bicycle and transit LOS threshold, thus resulting in a potentially significant impact.

As shown in **Table 3.1-56 and Table3.1-57**, under Existing plus Project conditions the Project would not increase the density by 5% or more at the facility that would exceed Caltrans minimum LOS thresholds.

Detailed roadway segment analysis worksheets are included in **Appendix C**, detailed freeway analysis worksheets for mainline, merge and diverge worksheets are attached in **Appendix D**, and detailed Leisch method analysis worksheets for weave segments are attached in **Appendix E**.

Table 3.1-52: Existing plus Project Segment Level of Service: Automobile Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	32.11	45.67	70.64%	B	33.92	45.67	75.4	B
		NB	D	29.22	45.67	64.28%	C	28.22	45.67	62.09	C
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	**11.73**	**42.64**	25.67%	**F**	**11.40**	**42.64**	26.7	**F**
		NB	D	24.80	45.90	50.82%	C	24.75	45.90	53.9%	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	27.12	44.82	60.51%	C	19.07	44.83	42.5%	D
		NB	D	20.71	44.83	46.20%	D	20.85	44.82	46.5%	D
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	37.53	44.80	83.77%	A	37.53	44.80	79.95%	B
		NB	D	33.31	45.22	73.66%	B	28.07	45.22	62.07%	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	22.64	45.33	49.94%	D	**18.10**	**45.33**	**39.9%**	**E**
		NB	D	19.99	40.66	49.16%	D	19.99	45.36	47.8%	D
6	Los Osos Valley Road from US 101 NB Ramps to South Higuera Street	SB	D	22.35	40.64	55.00%	C	22.35	40.64	58.0%	C
		NB	D	27.38	41.19	66.47%	C	31.85	45.77	69.0%	B
7	South Higuera Street from City Limit south to US 101/Clover Ridge Lane (No Ped or Transit LOS)	SB	D	44.67	45.72	97.70%	A	44.67	45.72	97.7%	A
		NB	D	40.53	45.73	88.63%	A	40.53	45.73	92.7%	A
8	South Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	24.68	45.33	54.45%	C	23.12	45.34	51.0%	C
		NB	D	20.10	45.68	44.00%	D	**14.88**	**45.69**	**32.6%**	**E**

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
9	South Higuera Street from Tank Farm Road to Prado Road	SB	D	32.63	45.21	72.17%	B	32.63	45.21	72.2%	C
		NB	D	29.87	45.21	66.07%	C	29.87	45.21	66.1%	C
10	Tank Farm Road from South Higuera Street to Broad Street (No Ped or Transit LOS)	EB	D	34.11	43.15	79.05%	B	34.11	43.15	79.0%	B
		WB	D	33.96	42.40	80.09%	A	33.96	42.40	80.1%	A
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	25.81	38.92	66.32%	C	25.81	38.92	66.3%	C
		WB	D	21.42	38.84	55.15%	C	21.42	38.84	55.1%	C

Notes:
Bold indicates unacceptable operations.

Table 3.1-53: Existing plus Project Segment LOS: Pedestrian Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	C	**3.55**	**D**	3.35	C
		NB	C	3.24	C	**4.07**	**D**
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	C	**3.55**	**D**	3.15	C
		NB	C	2.83	C	3.11	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	C	3.30	C	3.36	C
		NB	C	**3.14**	**F**	**3.53**	**D**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	C	**4.06**	**D**	**4.21**	**D**
		NB	C	3.35	C	3.35	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	C	**3.68**	**D**	**3.49**	**D**
		NB	C	3.33	C	**3.81**	**D**
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	C	**4.24**	**D**	**3.69**	**D**
		NB	C	**3.54**	**D**	3.20	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	C	3.14	C	**3.70**	**D**
		NB	C	2.73	C	2.85	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	C	**3.34**	**F**	**4.45**	**F**
		NB	C	2.47	C	3.19	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	C	**4.19**	**F**	3.06	C
		WB	C	**3.60**	**F**	**3.95**	**D**

Notes:
Bold indicates unacceptable operations.

Table 3.1-54: Existing plus Project Segment LOS: Bicycle Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.01	B	1.92	A
		NB	D	1.58	A	1.87	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.37	C	2.21	B
		NB	D	1.58	A	1.76	A
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	2.63	C	2.63	C
		NB	D	1.42	A	1.42	A
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	2.46	C	2.46	C
		NB	D	1.84	A	2.01	B
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	2.82	C	2.82	C
		NB	D	2.52	C	2.52	C
6	Los Osos Valley Road from US 101 NB Ramps to South Higuera Street	SB	D	2.38	C	2.38	C
		NB	D	1.81	A	1.81	A
7	South Higuera Street from City Limit south to US 101/Clover Ridge Lane	SB	D	1.49	A	1.72	A
		NB	D	1.60	A	1.48	A
8	South Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	2.51	C	2.51	C
		NB	D	2.83	C	2.83	C
9	South Higuera Street from Tank Farm Road to Prado Road	SB	D	2.39	C	2.39	C
		NB	D	1.99	A	1.99	C
10	Tank Farm Road from South Higuera Street to Broad Street	EB	D	2.68	C	2.68	C
		WB	D	2.90	C	2.90	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.05	C	3.05	C
		WB	D	2.17	B	2.45	C

Table 3.1-55: Existing plus Project Segment LOS: Transit Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.89	C	2.84	C
		NB	D	1.74	A	1.93	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	3.15	C	2.45	C
		NB	D	3.16	C	2.86	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	3.53	D	3.76	D
		NB	D	2.04	B	2.13	B
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	2.99	C	3.22	C
		NB	D	3.22	C	3.39	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	3.88	D	3.37	C
		NB	D	3.60	D	3.30	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	4.07	D	3.77	D
		NB	D	3.14	C	2.68	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	3.52	D	3.52	D
		NB	D	3.22	C	3.22	D
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.21	C	3.21	C
		WB	D	3.30	C	3.30	C

Notes:
Segments with no transit stops are excluded from the analysis.

Table 3.1-56: Existing plus Project Segment LOS: Freeway Mainline, Ramp & Weaving Segment Analysis

#	Interchange Location	Target LOS	Segment Type	Lanes	AM Peal Hour			PM Peal Hour		
					Volume	Density (pc/mi/ln)	LOS	Volume	Density (pc/mi/ln)	LOS
US 101 Northbound										
1	US 101 NB, south of S Higuera Street	C	Freeway	2	2,348	19.9	C	2,392	20.3	C
2	US 101 NB, south of Los Osos Valley Road	C	Freeway	2	2,613	22.2	C	2,009	17.0	B
3	US 101 NB Los Osos Valley Road Off Ramp	C	Diverge	1	558	26.9	C	652	20.7	C
4	US 101 NB Los Osos Valley Road On Ramp	C	Merge	1	237	27.3	C	415	22.9	C
5	US 101 NB, north of Prado Road	C	Freeway	2	2,333	19.8	C	2,247	19.1	C
6	US 101 NB Prado Road Off Ramp	C	Diverge	1	225	23.7	C	145	22.7	C
7	US 101 NB Prado Road On Ramp	C	Merge	1	250	24.6	C	495	26.3	C
8	US 101 NB, south of Madonna Road	C	Freeway	2	2,865	24.5	C	3,120	**27.1**	**D**
9	US 101 NB, Madonna Road Off Ramp	C	Diverge	1	279	**29.2**	**D**	349	**31.8**	**D**
US 101 Southbound										
10	US 101 SB, north of Madonna Road	C	Freeway	2	1,986	16.9	B	2,952	25.3	C
11	US 101 SB Madonna Road On Ramp	C	Merge	1	179	20.6	C	348	**32.8**	**D**
12	US 101 SB, north of Prado Road	C	Freeway	2	1,846	15.7	B	3,002	25.8	C
13	US 101 SB, south of Los Osos Valley Road	C	Freeway	2	1,228	10.4	A	2,226	18.9	C
14	US 101 SB Los Osos Valley Road Off Ramp	C	Diverge	1	605	12.7	B	583	22.9	C
15	US 101 SB Los Osos Valley Road On Ramp	C	Merge	1	374	15.0	B	682	28.1	C
16	US 101 SB, north of S Higuera Street	C	Freeway	2	2,192	18.6	C	3,534	**32.1**	**D**

Notes:
Bold indicates unacceptable operations.

Table 3.1-57: Existing plus Project Conditions Weaving Segment Analysis: Leisch Method

Interchange Location	Target LOS	Segment Type	No. of Lanes	Length	AM Peak		PM Peak	
					Total Volume	LOS	Total Volume	LOS
US 101 Northbound								
Between Los Osos Valley Road and Prado Road	C	Weave	2	4,380	3,015	A	2,807	A
Between Prado Road and Madonna Road	C	Weave	2	2,280	3,384	A	3,949	A
US 101 Southbound								
Between Madonna Road and Los Osos Valley Road	C	Weave	2	5,490	2,770	A	3,933	A

3.3.4 Existing plus Project Impacts and Mitigation Measures

This section presents the project-related impacts and mitigation measures at the study intersections and segments, developed based on the findings from the analyses presented in the prior sections of this document. Improvements are identified only where this is a significant project impact, based on the significance thresholds identified previously.

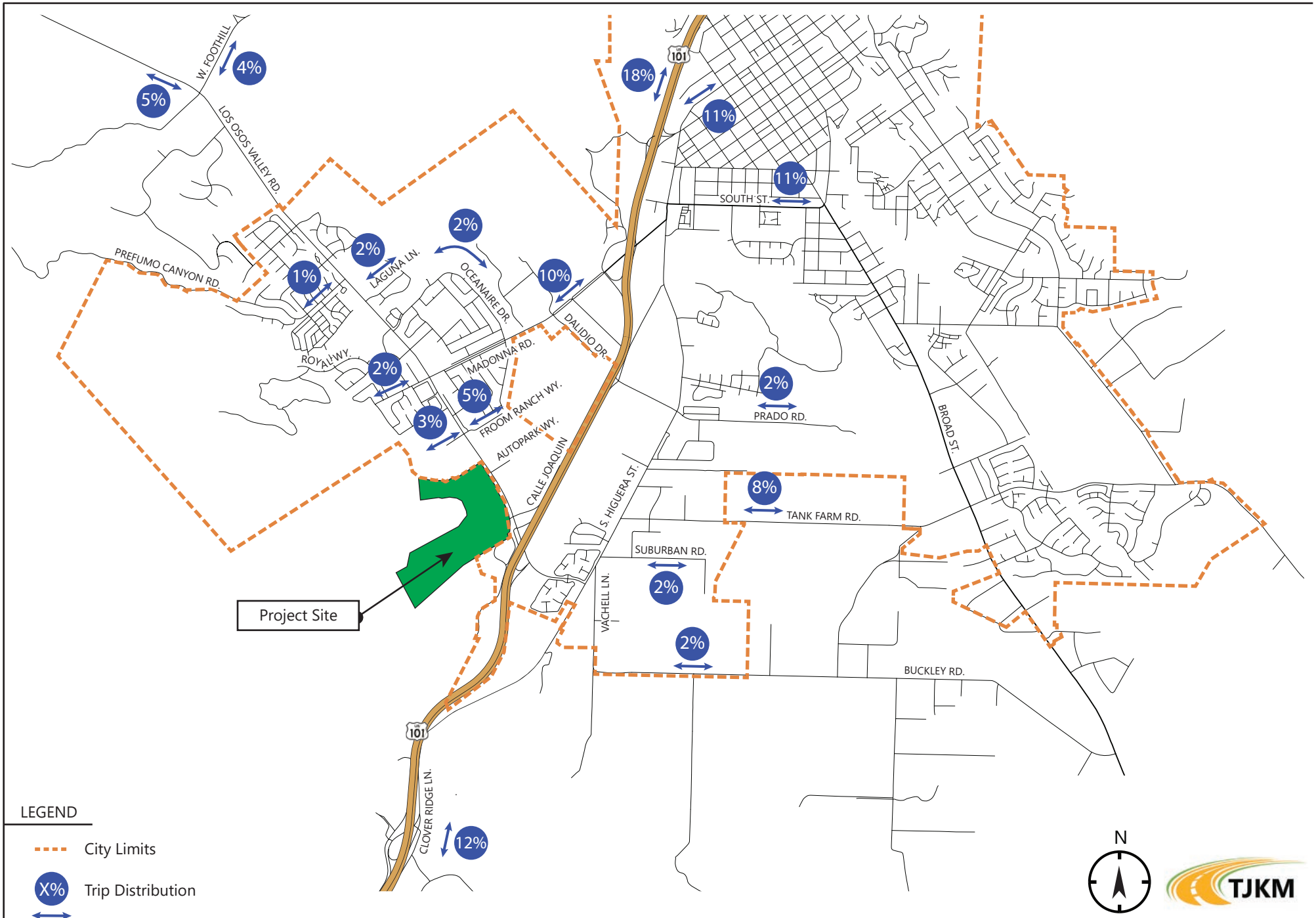
Table 3.1-58: Existing plus Project Impacts & Mitigations

Location	Trigger	Mode	Impact	Mitigation Measure
Existing Plus Project Impacts and Mitigation Measures				
Intersection #10: Los Osos Valley Road & US 101 SB Ramps	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the existing southbound right queue and westbound right queue in the p.m. peak hour.	Extend the westbound left turn pocket to 320 feet, extend the southbound right turn pocket to 140 feet, and optimize traffic signal coordination between LOVR/Calle Joaquin and LOVR/US 101 SB Ramps. Project is responsible for implementation prior to Phase 4 or fair-share contribution if constructed sooner by others. *Requires Caltrans approval and coordination.*[1]
Intersection #13: S Higuera Street & Vachell Lane	Phase 4	Auto	Side-street stop-sign controlled intersection operates at an unacceptable Automobile Level of Service. Project traffic would increase the volume/capacity (v/c) ratio by 0.01 and side-street approach volumes exceed signal warrant thresholds.	Restrict Vachell Lane motor vehicle access to right-in/right-out only, extend Buckley Road from Vachell to S. Higuera and install traffic signal at Buckley/S. Higuera. Project is responsible for implementation prior to Phase 4 or fair-share contribution if constructed sooner by others. *Requires County approval and coordination*
Intersection #14: S Higuera Street & Suburban Street	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the existing westbound left queue in the p.m. peak hour.	Restripe westbound approach to extend left- and right-turn pocket storage to 250 feet. Project is responsible for implementation prior to Phase 4 or fair-share contribution if constructed sooner by others.

Location	Trigger	Mode	Impact	Mitigation Measure
Intersection #15: S Higuera Street & Tank Farm Road	Phase 2 Phase 4	Bicycle Auto (Queue)	Project traffic would exacerbate existing unacceptable intersection LOS for bicycles approaching the intersection westbound on Tank Farm Road. Addition of project traffic will exacerbate the southbound left queue that would exceed capacity in the p.m. peak hour.	Extend the westbound bike lane to the intersection and install bike box to facilitate bicycle left-turn movements. Construct Prado Road Interchange and NB US 101 ramps. Mitigate to maximum extent feasible with installation of a second southbound left-turn lane. Project is responsible for implementation of bicycle improvements prior to Phase 2, and addition of the southbound left-turn lane and Prado Interchange prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others. ***This impact under Existing plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***
Intersection #16: S Higuera Street & Prado Road	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the northbound left queue and southbound left queue in the a.m. and p.m. peak hours	Widen intersection to provide dual northbound left-turn lanes (requires replacement of Prado Road Bridge just west of S. Higuera). Project is responsible for implementation prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others.
Roadway Segment #1: Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive.	Phase 2	Pedestrian	Roadway segments on Los Osos Valley Road operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Install Class IV bikeways (protected bike lanes) along Los Osos Valley Road to provide a physical buffer between the sidewalk and vehicular traffic lanes. Improvement extents: NB (between Laguna Lane and Diablo Drive); SB (between Oceanaire and Diablo Drive). Project is responsible for fair-share contribution towards improvements.
Roadway Segment #2: Los Osos Valley Road from Oceanaire Drive to Madonna Road	Phase 2	Pedestrian	Roadway segment operates at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Install Class IV bikeways (protected bike lanes) along Los Osos Valley Road to provide a physical buffer between the sidewalk and vehicular traffic lanes. Improvement extents: SB (between Madonna and Oceanaire). Project is responsible for fair-share contribution towards improvements.

Location	Trigger	Mode	Impact	Mitigation Measure
Roadway Segments #3, #4, #5 and #6: Los Osos Valley Road from Madonna Road to S. Higuera Street	Phase 2	Pedestrian	Roadway segments operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Install sidewalk along the west side of Los Osos Valley Road along the Project frontage between Irish Hills Plaza and Calle Joaquin. Install Class IV bikeways (protected bike lanes) along Los Osos Valley Road to provide a physical buffer between the sidewalk and vehicular traffic lanes. Improvement extents: NB & SB (between Madonna and S. Higuera). Project is responsible for construction of sidewalks prior to Phase 2. Project is responsible for a fair-share contribution towards Class IV bikeway improvements for Segments #5-6. Fair-shared contribution for Segments #3-4 through payment of City Traffic Impact Fees.
Roadway Segment #11: Madonna Road from Los Osos Valley Road to Dalidio Drive	Phase 2	Pedestrian	Roadway segment operates at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Install Class I Path parallel to Madonna Road between Oceanaire and the US 101 SB Ramps intersection. Project is responsible for a fair-share contribution towards improvements through payment of City Traffic Impact Fees.
Local Road A	Phase 4	Neighbor-hood Traffic Manage-ment	Geometric design of Local Road A lacks features conducive to maintaining vehicle speeds within the City's established General Plan maximum target of 25 mph for local residential streets.	If accepted by the City as a public street, the Project is responsible for incorporating traffic calming measures into the design of Local Street A prior to Phase 4.

Existing Plus Project Trip Distribution



292-003

Figure 3.1-12

Existing Plus Project Trip Assignment

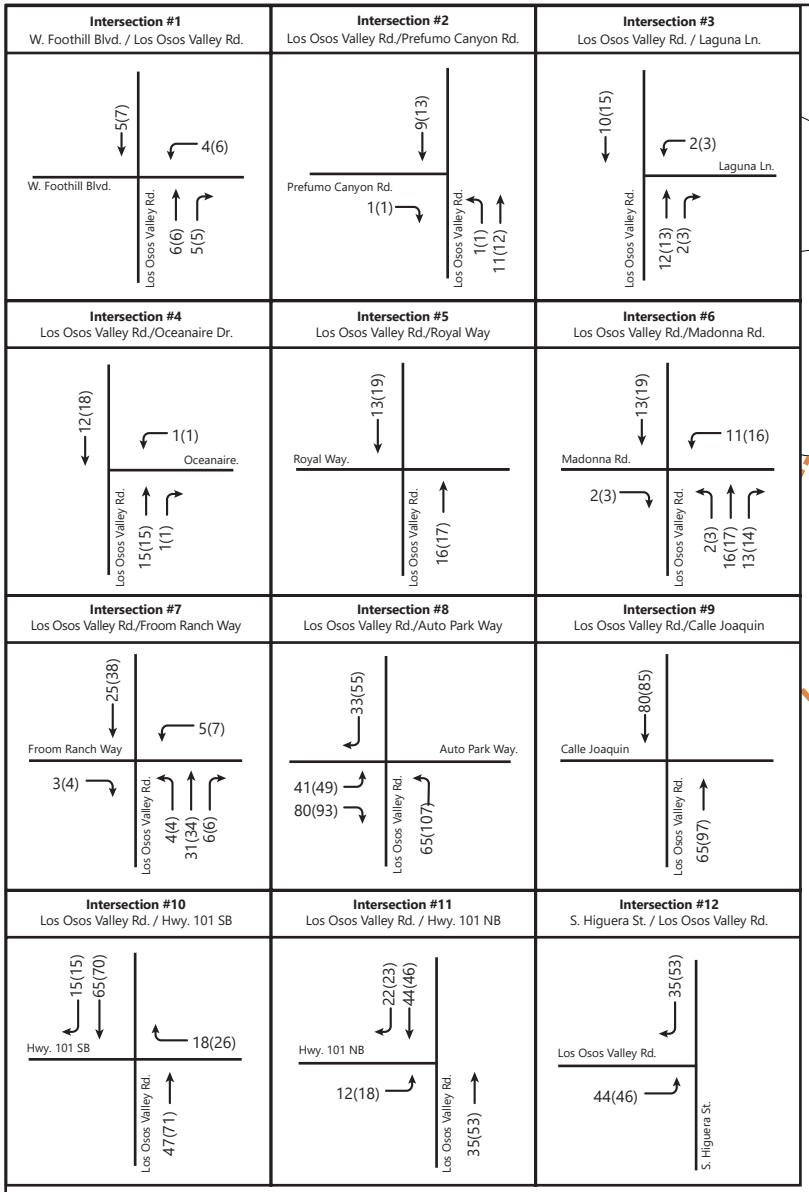


Figure 3.1-13

Existing Plus Project Trip Assignment

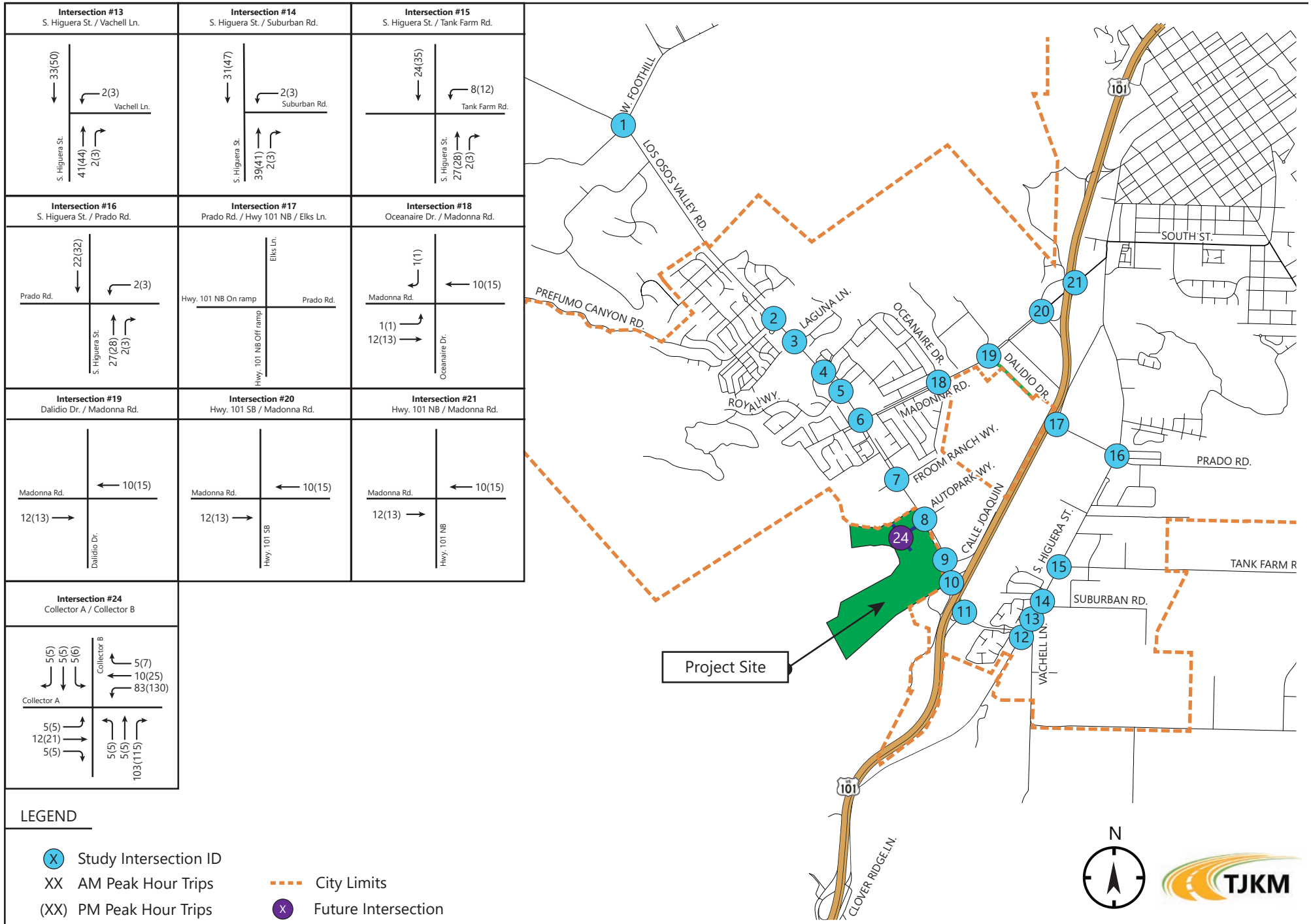


Figure 3.1-13

Existing plus Project Lane Geometry and Traffic Controls

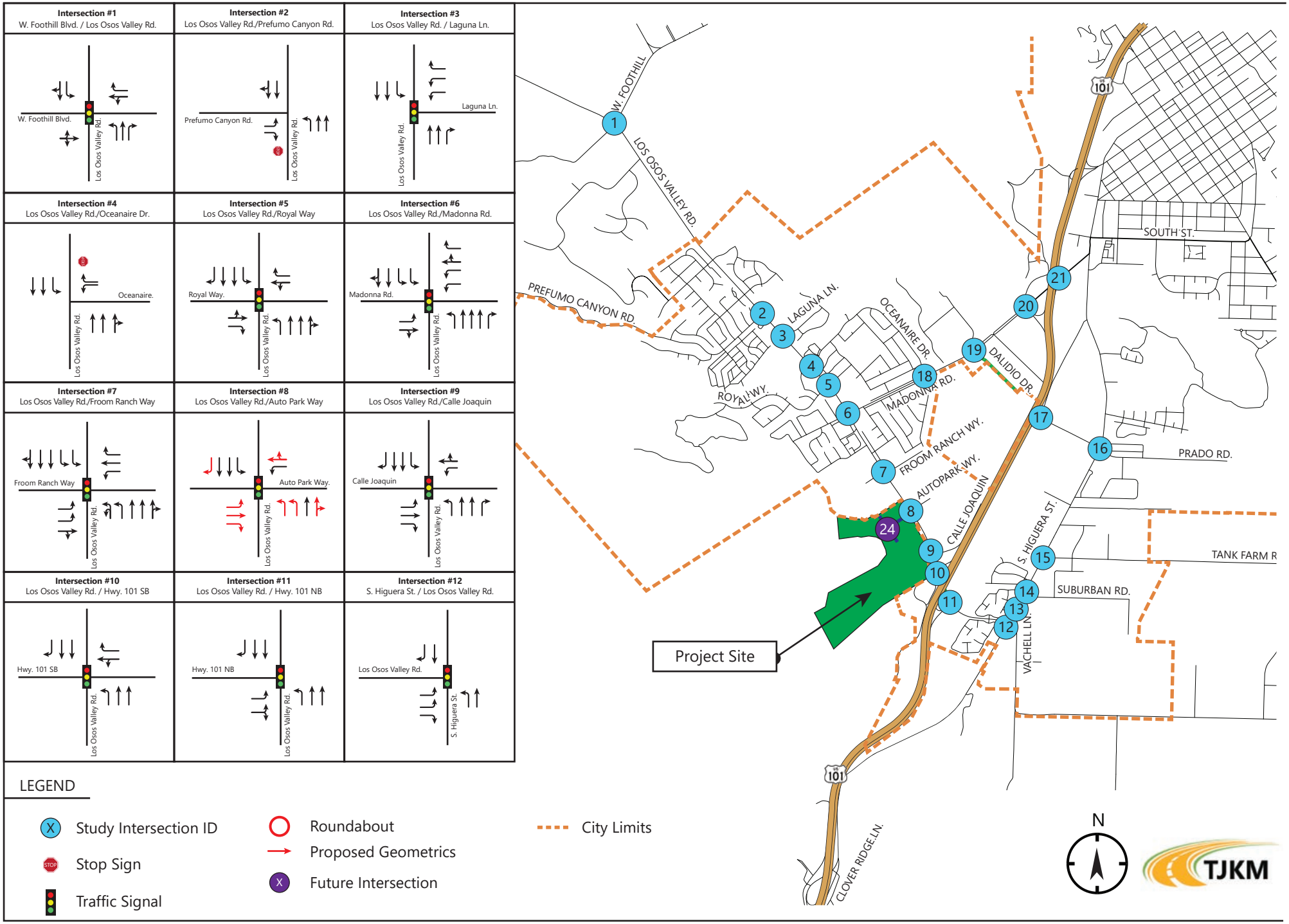
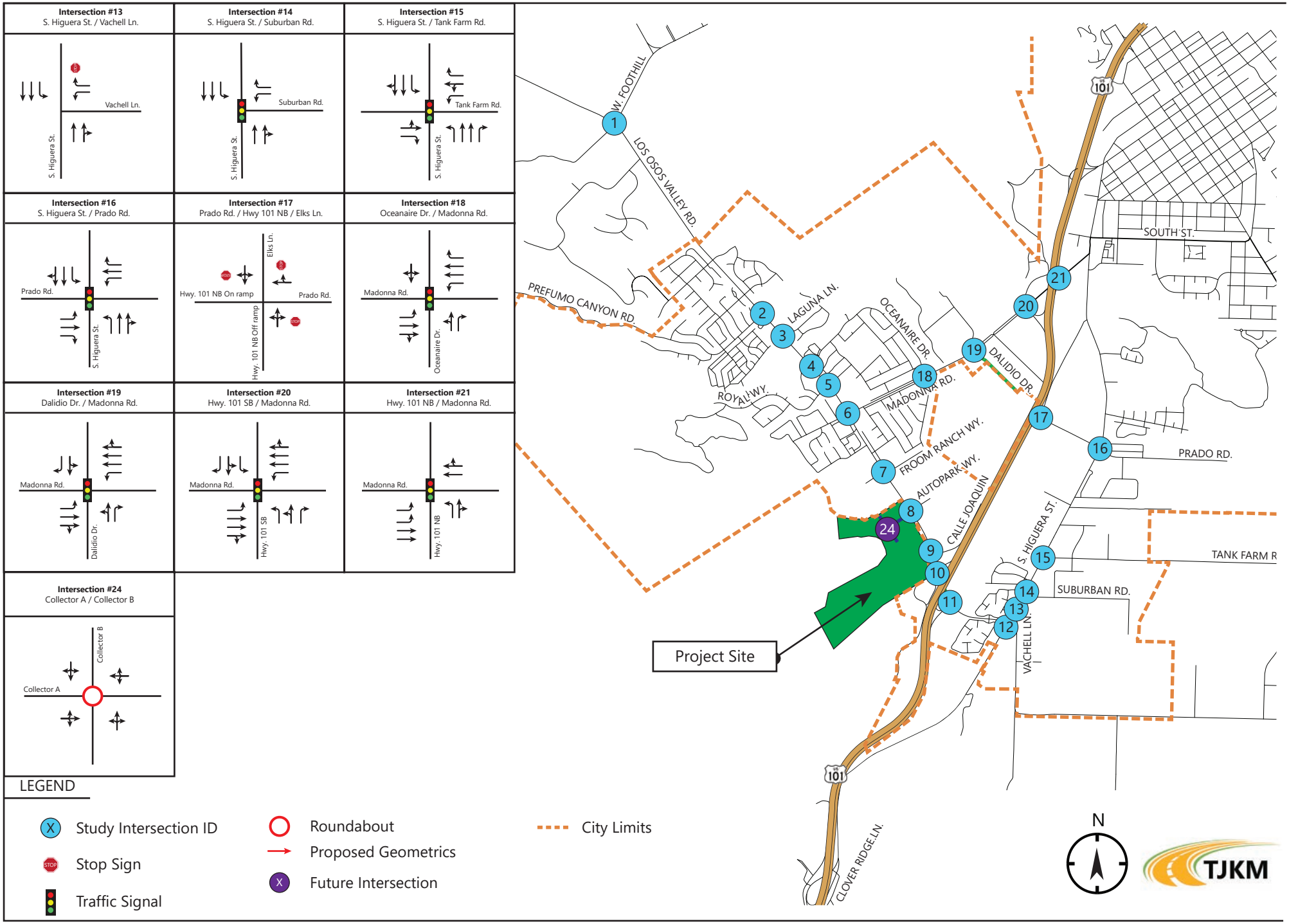


Figure 3.1-14

Existing plus Project Lane Geometry and Traffic Controls



292-003

Figure 3.1-14

Existing Plus Project Turning Movement Volumes

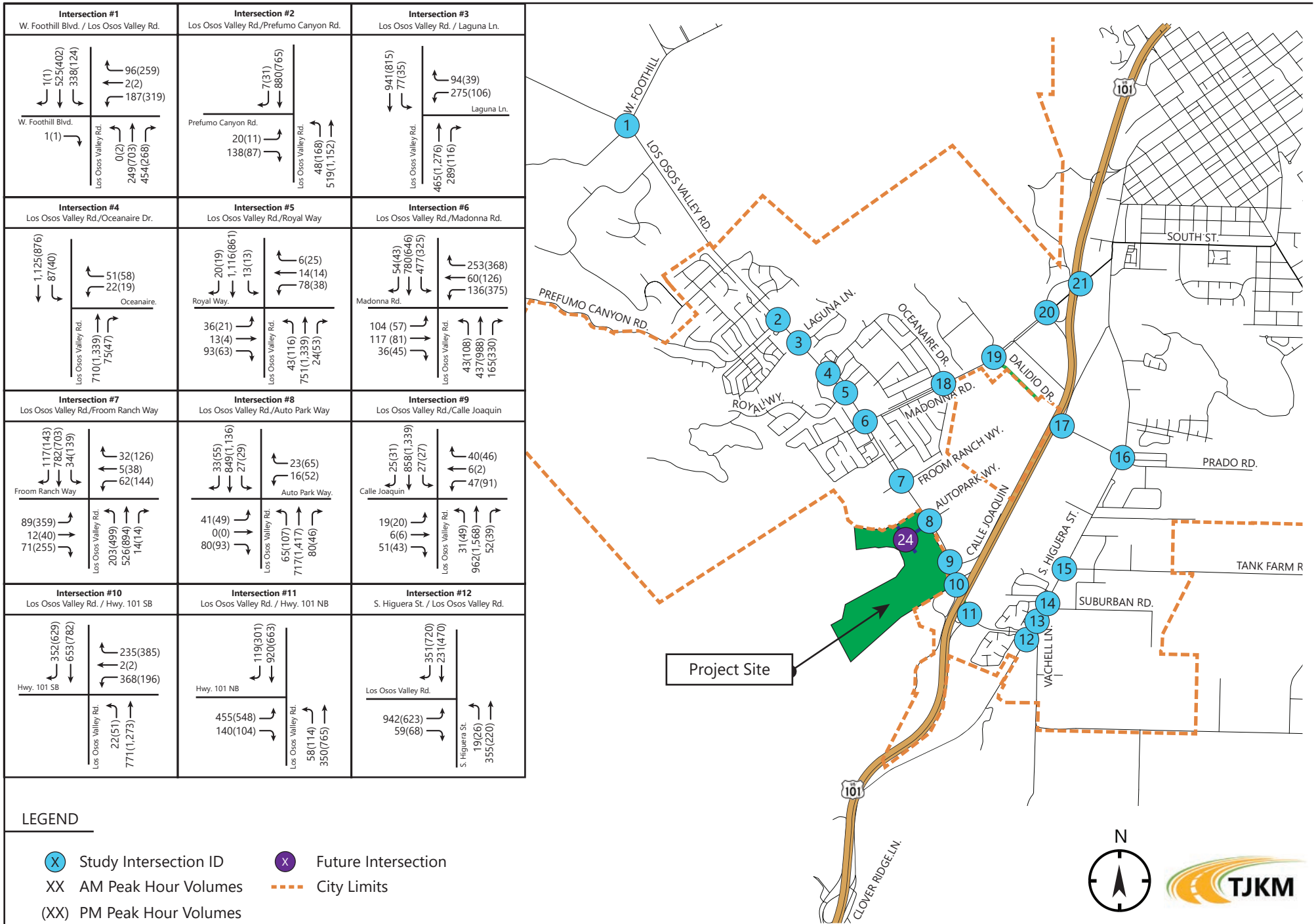
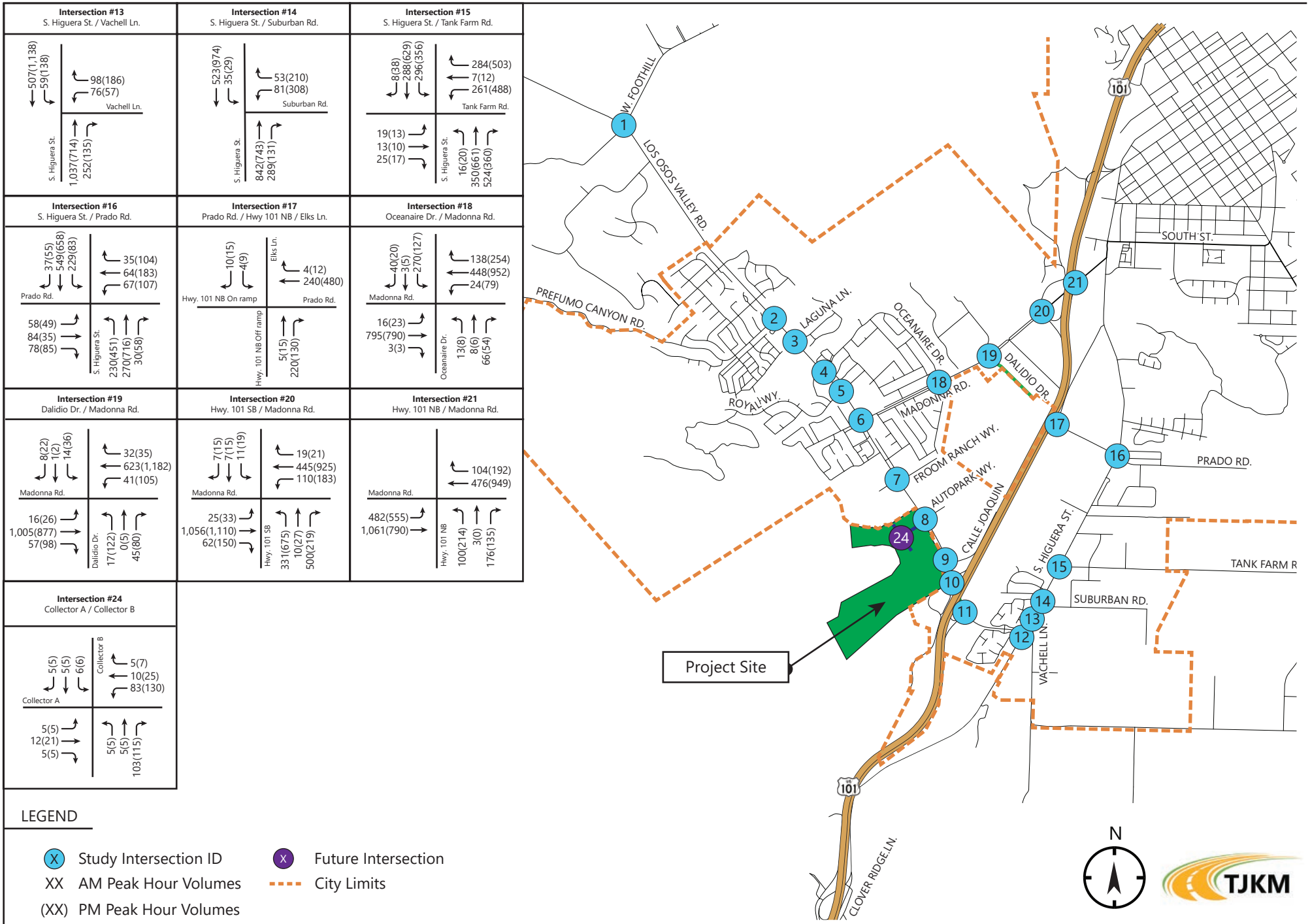


Figure 3.1-15

Existing Plus Project Turning Movement Volumes



292-003

Figure 3.1-15

3.3.5 Near Term Scenario 1 Plus Project Conditions LOS Analysis

Using vehicle trip generation and distribution data, the TIS analyzed the multi-modal transportation effects of the Project on roadway segments and intersections under Near Term Scenario 1 plus Project conditions. The LOS and queuing results are provided in **Table 3.1-59** through **Table 3.1- 62** below. Near Term Scenario 1 baseline results were compared with Near Term Scenario 1 plus Project conditions to determine the degree of change projected for each of the intersections and roadway segments. The Near Term Scenario 1 plus Project LOS was also compared with City thresholds to determine where significant impacts may occur as a result of Project implementation. A description of the LOS and queuing results is provided below.

Figure 3.1-16 shows Project trip distribution pattern for Near Term Scenario 1 plus Project conditions. **Figure 3.1-17** shows Project trip assignment for Near Term Scenario 1 plus Project conditions. **Figure 3.1-18** shows the Near Term Scenario 1 plus Project peak hour traffic volumes at the study intersections. Detailed Synchro LOS worksheets are included in **Appendix A**

Table 3.1-59: Near Term Scenario 1 plus Project Intersection LOS Automobile

ID	Study Intersections	LOS Target	Peak Hour	Near Term Conditions			Near Plus Project Conditions			
				Delay[1]	LOS[2]	V/C[3]	Delay[1]	LOS[2]	V/C[3]	Change in V/C
1	Los Osos Valley Road & Foothill Boulevard	D	AM	33.4	C		34.5	C		
			PM	**55.1**	**E[5]**	**1.02**	**57.3**	**E[5]**	**1.02**	**0.00**
2	Los Osos Valley Road & Prefumo Canyon Road	D	AM	22.0	C		22.3	C		
			PM	30.2	D		30.9	D		
3	Los Osos Valley Road & Laguna Lane	D	AM	14.1	B		14.2	B		
			PM	8.9	A		9.0	A		
4	Los Osos Valley Road & Oceanaire Drive	D	AM	**137.4**	**F**	**1.12**	**159.3**	**F**	**1.23**	**0.11**
			PM	**108.4**	**F**	**0.97**	**119.7**	**F**	**1.04**	**0.07**
5	Los Osos Valley Road & Royal Way	D	AM	42.0	D		43.2	D		
			PM	19.3	B		19.5	B		
6	Los Osos Valley Road & Madonna Road	D	AM	39.4	D		39.7	D		
			PM	44.4	D		44.7	D		
7	Los Osos Valley Road & Froom Ranch Way	D	AM	21.9	C		22.2	C		
			PM	38.1	D		39.5	D		
8	Los Osos Valley Road & Auto Park Way	D	AM	7.0	A		14.1	B		
			PM	4.7	A		18.4	C		
9	Los Osos Valley Road & Calle Joaquin	D	AM	6.0	A		5.9	A		
			PM	12.6	B		9.4	A		
10	Los Osos Valley Road & US 101 SB Ramps	C	AM	12.6	B		12.4	B		
			PM	12.7	B		15.1	B		
11	Los Osos Valley Road & US 101 NB Ramps	C	AM	27.2	C		27.2	C		
			PM	31.1	C		31.4	C		
12	Los Osos Valley Road & S. Higuera Street	D	AM	18.2	B		19.3	B		
			PM	21.3	C		23.5	C		

ID	Study Intersections	LOS Tar-get	Peak Hour	Near Term Conditions			Near Plus Project Conditions			
				Delay[1]	LOS[2]	V/C[3]	Delay[1]	LOS[2]	V/C[3]	Change in V/C
13	S. Higuera Street & Vachelle Lane	D	AM	22.2	C		22.8	C		
			PM	15.7	C		16.1	C		
14	S. Higuera Street & Suburban Road[4]	D	AM	7.8	A		8.0	A		
			PM	14.2	B		14.6	B		
15	S. Higuera Street & Tank Farm Road	D	AM	29.1	C		29.4	C		
			PM	47.1	D		47.9	D		
16	S. Higuera Street & Prado Road	D	AM	41.4	D		43.8	D		
			PM	**62.2**	**E**	**1.16**	**57.8**	**E**	**1.11**	**-0.05**
17	Prado Road/US 101 NB Ramps & Elks Lane	C	AM	7.8	A		7.9	A		
			PM	9.0	A		9.1	A		
18	Madonna Road & Oceanaire Drive[4]	D	AM	45.4	D		45.9	D		
			PM	35.3	D		35.7	D		
19	Madonna Road & Dalidio Drive	D	AM	34.5	C		34.5	C		
			PM	46.8	D		46.9	D		
20	Madonna Road & US 101 SB Ramps/Madonna Inn	C	AM	26.6	C		26.6	C		
			PM	23.9	C		23.8	C		
21	Madonna Road & US 101 NB Ramps	C	AM	16.6	B		16.8	B		
			PM	33.8	C		32.0	C		
22	Dalidio Drive & Froom	D	AM	6.9	A		7.1	A		
			PM	10.9	B		11.2	B		
24	Collector A & Collector B (on-site)	D	AM	-	-		3.4	A		
			PM	-	-		3.6	A		

Notes:
[1]Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.
[2]LOS – Levels of Service
[3] Volume-to-capacity ratio reported for worst movement only.
[4]HCM 6th Methodology does not support intersections with more than four approaches. Hence HCM 2000 Methodology used for intersection 14 and 18
[5]Impact is less than significant because signalization is not warranted.
Bold indicates unacceptable operations.

As shown in **Table 3.1-59**, under Near Term plus Project Scenario 1 Conditions the project causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards for automobile at the following intersections:

- Los Osos Valley Road and Foothill operates at LOS E during the PM peak hour
- Los Osos Valley Road and Oceanaire operates at LOS F during the a.m. and p.m. peak hours, but conditions do not satisfy signal warrants
- S. Higuera and Prado operates at LOS E during the p.m. peak hour.

Table 3.1-60: Near Term Scenario 1 plus Project Intersection LOS – Pedestrian

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	C	1.75	B	1.75	B
		WB	C	2.50	C	2.44	B
		NB	C	2.77	C	2.83	C
		SB	C	2.83	C	2.98	C
2	Los Osos Valley Road & Prefumo Canyon Road[1]	EB	C	n/a			
		WB	C				
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	**>5.0**	**F**	**>5.0**	**F**
3	Los Osos Valley Road & Laguna Lane	EB	C	n/a			
		WB	C	2.40	B	2.22	B
		NB	C	2.87	C	2.87	C
		SB	C	2.93	C	3.09	C
4	Los Osos Valley Road & Oceanaire Drive[1]	EB	C	n/a	n/a	n/a	n/a
		WB	C	n/a	n/a	n/a	n/a
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	n/a			
5	Los Osos Valley Road & Royal Way	EB	C	2.02	B	2.02	B
		WB	C	2.00	B	1.99	B
		NB	C	3.17	C	3.23	C
		SB	C	3.15	C	3.20	C
6	Los Osos Valley Road & Madonna Road	EB	C	2.15	B	2.15	B
		WB	C	3.07	C	3.06	C
		NB	C	3.00	C	3.18	C
		SB	C	3.43	C	3.49	C
7	Los Osos Valley Road & Froom Ranch Way	EB	C	2.67	C	2.79	C
		WB	C	2.61	C	2.66	C
		NB	C	3.13	C	3.33	C
		SB	C	3.10	C	3.31	C
8	Los Osos Valley Road & Auto Park Way	EB	C	2.21	B	2.21	B
		WB	C	2.03	B	2.20	B
		NB	C	3.02	C	3.28	C
		SB	C	3.00	C	3.27	C
9	Los Osos Valley Road & Calle Joaquin	EB	C	2.49	B	2.49	B
		WB	C	2.10	B	2.12	B
		NB	C	3.12	C	3.41	C
		SB	C	2.99	C	3.27	C
10	Los Osos Valley Road & US 101 SB Ramps	EB	C	1.96	B	2.29	B
		WB	C	2.27	B	2.21	B
		NB	C	2.93	C	3.09	C
		SB	C	3.00	C	3.31	C
11	Los Osos Valley Road & US 101 NB Ramps	EB	C	2.50	C	2.63	C
		WB	C	1.43	A	1.43	A
		NB	C	2.83	C	2.88	C
		SB	C	2.92	C	3.07	C

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
12	Los Osos Valley Road & S. Higuera Street	EB	C	2.88	C	2.88	C
		WB	C	n/a			
		NB	C	2.44	B	2.41	B
		SB	C	2.93	C	3.00	C
13	S. Higuera Street & Vachelle Lane[1]	EB	C	n/a			
		WB	C				
		NB	C				
		SB	C				
14	S. Higuera Street & Suburban Road	EB	C	n/a			
		WB	C	2.22	B	2.30	B
		NB	C	3.08	C	3.29	C
		SB	C	2.83	C	3.02	C
15	S. Higuera Street & Tank Farm Road	EB	C	2.04	B	2.05	B
		WB	C	3.02	C	3.16	C
		NB	C	3.42	C	**3.65**	**D**
		SB	C	2.77	C	3.08	C
16	S. Higuera Street & Prado Road	EB	C	2.74	C	2.92	C
		WB	C	2.48	B	2.55	C
		NB	C	2.90	C	3.19	C
		SB	C	2.96	C	3.10	C
17	Prado Road/US 101 NB Ramps	EB	C	n/a			
		WB	C				
		NB	C				
		SB	C				
18	Madonna Road & Oceanaire Drive	EB	C	2.79	C	2.96	C
		WB	C	3.30	C	3.46	C
		NB	C	2.02	B	2.02	B
		SB	C	2.05	B	1.98	B
		SE	C	1.85	B	1.86	B
		NE	C	1.78	B	1.78	B
19	Madonna Road & Dalidio Drive	EB	C	3.19	C	3.30	C
		WB	C	3.14	C	3.24	C
		NB	C	2.80	C	2.95	C
		SB	C	1.99	B	2.01	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	C	2.90	C	3.04	C
		WB	C	2.91	C	2.99	C
		NB	C	2.73	C	2.80	C
		SB	C	2.17	B	2.19	B
21	Madonna Road & US 101 NB Ramps	EB	C	2.97	C	2.93	C
		WB	C	2.82	C	2.77	C
		NB	C	2.01	B	1.98	B
		SB	C	2.10	B	2.16	B

Notes:

[1]For unsignalized AWSC intersections, pedestrian delay is reported as pedestrian LOS methodology is not supported for crosswalks that intersect stop-sign controlled approaches. For unsignalized TWSC intersections, pedestrian LOS methodology is limited to the uncontrolled crossings.

As shown in **Table 3.1-60**, under Near Term plus Project Scenario 1 Conditions the project causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards for pedestrian LOS at intersections:

- Los Osos Valley Road & Oceanaire Drive (#4): this side-street stop-sign controlled intersection operates with unacceptable intersection LOS for pedestrians due to the uncontrolled crossing of four motor vehicle lanes across Los Osos Valley Road. While Project traffic would exacerbate the unacceptable pedestrian LOS, this impact is considered to be less than significant given the contextual location and characteristics: there is very little existing pedestrian crossing demand, warrants for installation of a marked pedestrian crossing or enhanced crossing device (i.e. signal or pedestrian hybrid beacon) are unlikely to be met even if considering latent crossing demand, existing signalized crossings are present within one block to the north (Laguna Ln.) or south (Royal Way).
- Los Osos Valley Road & Prefumo Canyon Road (#2): this side-street stop-sign controlled intersection operates with unacceptable intersection LOS for pedestrians due to the uncontrolled crossing of four motor vehicle lanes across Los Osos Valley Road. This impact is less than significant given the contextual location: no land uses are directly accessible on the east side of Los Osos Valley Road near this intersection, thus potential demand for pedestrian crossings is low.
- S. Higuera Street & Tank Farm (#13): this signalized intersection operates with unacceptable intersection LOS for pedestrians at the northbound approach during the p.m. peak hour due to heavy traffic volumes and lengthy traffic signal cycle lengths. Addition of project traffic exacerbates these conditions.

Table 3.1-61: Near Term Scenario 1 plus Project Intersection LOS– Bicycle Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	D	2.71	C	2.71	C
		WB	D	3.34	C	4.06	D
		NB	D	2.95	C	3.24	C
		SB	D	2.74	C	2.02	B
3	Los Osos Valley Road & Laguna Lane	EB	D	n/a			
		WB	D	3.27	C	2.83	C
		NB	D	2.01	B	2.37	B
		SB	D	1.55	B	1.46	A
5	Los Osos Valley Road & Royal Way	EB	D	3.17	C	3.00	C
		WB	D	3.30	C	2.96	C
		NB	D	2.75	C	3.14	C
		SB	D	2.34	B	2.07	B
6	Los Osos Valley Road & Madonna Road	EB	D	3.45	C	3.25	C
		WB	D	3.74	D	4.42	D
		NB	D	1.71	B	2.10	B
		SB	D	2.98	C	2.63	C
7	Los Osos Valley Road & Froom Ranch Way	EB	D	3.61	D	**4.54**	**E**
		WB	D	2.57	C	2.86	C
		NB	D	1.90	B	2.38	B
		SB	D	1.70	B	1.98	B
8	Los Osos Valley Road & Auto Park Way	EB	D	2.89	C	2.90	C
		WB	D	2.98	C	3.14	C
		NB	D	3.18	C	3.73	D
		SB	D	3.10	C	3.63	D
9	Los Osos Valley Road & Calle Joaquin	EB	D	3.10	C	3.07	C
		WB	D	3.17	C	3.32	C
		NB	D	1.68	B	2.05	B
		SB	D	1.77	B	0.82	A
10	Los Osos Valley Road & US 101 SB Ramps	EB	D	n/a			
		WB	D	2.80	C	2.60	C
		NB	D	1.73	B	2.23	B
		SB	D	1.58	B	1.94	B
11	Los Osos Valley Road & US 101 NB Ramps	EB	D	3.93	D	3.98	D
		WB	D	1.39	A	1.39	A
		NB	D	1.76	B	2.17	B
		SB	D	2.24	B	2.28	B
12	Los Osos Valley Road & S. Higuera Street	EB	D	2.06	B	1.78	B
		WB	D	n/a			
		NB	D	2.35	B	1.89	B
		SB	D	2.48	B	3.63	D
14	S. Higuera Street & Suburban Road	EB	D	n/a			
		WB	D	1.17	A	1.57	B

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
		NB	D	2.46	B	2.19	B
		SB	D	2.09	B	2.70	C
15	S. Higuera Street & Tank Farm Road	EB	D	2.73	C	2.72	C
		WB	D	3.89	D	**5.18**	**E**
		NB	D	2.31	B	2.43	B
		SB	D	1.88	B	2.38	B
16	S. Higuera Street & Prado Road	EB	D	2.75	C	3.18	C
		WB	D	2.02	B	2.88	C
		NB	D	1.76	B	2.47	B
		SB	D	2.48	B	2.29	B
18	Madonna Road & Oceanaire Drive	EB	D	2.79	C	2.86	C
		WB	D	1.56	B	2.25	B
		NB	D	2.87	C	2.86	C
		SB	D	2.74	C	2.32	B
		SE	D	2.62	C	2.62	C
		NE	D	2.20	B	2.20	B
19	Madonna Road & Dalidio Drive	EB	D	2.36	B	2.36	B
		WB	D	1.77	B	1.96	B
		NB	D	2.62	C	3.95	D
		SB	D	1.59	B	1.94	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	D	1.84	B	1.91	B
		WB	D	1.56	B	1.83	B
		NB	D	3.13	C	3.48	C
		SB	D	2.94	C	2.97	C
21	Madonna Road & US 101 NB Ramps	EB	D	2.75	C	2.22	B
		WB	D	1.64	B	2.06	B
		NB	D	2.31	B	2.19	B
		SB	D	n/a			

Notes:
Bicycle LOS summary excludes unsignalized intersections and locations where no bicycle facilities are provided as HCM 6th Bike LOS Methodology do not model segments bounded by unsignalized intersections.

As shown in **Table 3.1-61**, under the Near Term Scenario 1 plus Project Conditions the project causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards for bicycle LOS at intersections:

- Los Osos Valley Road and Froom Ranch Way in the eastbound direction during p.m. peak hour
- South Higuera Street and Tank Farm Road in the westbound direction during p.m. peak hour

As part of other intersection capacity improvements planned at the Los Osos Valley Road/Froom Ranch Way intersection as part of the San Luis Ranch development, shared lane markings (sharrows) will be installed at the west leg of the intersection and intersection corners will be upgraded to feature bicycle protected intersection elements.

Because these improvements are anticipated to be in place under baseline Near Term conditions, Project-related bicycle LOS impacts at this location are not considered to be contextually significant.

Table 3.1-62: Near Term Scenario 1 plus Project – 95th Percentile Queuing Analysis

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Scenario 1	Near Term Plus Project Scenario 1
1	Los Osos Valley Road/Foothill Boulevard	WBR	180	AM	0	0
				PM	0	0
		NBL	120	AM	0	0
				PM	15	15
		NBR	370	AM	30	30
				PM	120	125
		SBL	490	AM	**#590**	**#600**
				PM	#325	#325
3	Los Osos Valley Road/Laguna Lane	WBL	Trap Lane	AM	90	90
				PM	45	45
		WBR	Trap Lane	AM	0	0
				PM	15	15
		NBR	80	AM	10	10
				PM	40	40
		SBL	120	AM	45	45
				PM	25	25
5	Los Osos Valley Road/Royal Way	EBR	70	AM	15	15
				PM	30	0
		WBR	70	AM	0	0
				PM	0	0
		NBL	110	AM	30	30
				PM	70	75
		SBL	160	AM	15	15
				PM	15	15
		SBR	50	AM	0	0
				PM	0	0
6	Los Osos Valley Road/Madonna Road	EBL	230	AM	130	130
				PM	80	80
		WBL	Trap Lane	AM	80	90
				PM	155	165
		WBR	170	AM	50	50
				PM	85	85
		NBL	200	AM	83	90
				PM	#165	#175
		NBR	175	AM	75	85
				PM	35	35
		SBL	350	AM	**360**	**365**
				PM	#240	#240
7		EBL	250	AM	65	65

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Scenario 1	Near Term Plus Project Scenario 1
	Los Osos Valley Road/Froom Ranch Way			PM	#215	#215
		EBR	250	AM	0	0
				PM	65	65
		WBL	295	AM	75	85
				PM	130	140
		WBR	50	AM	0	0
				PM	**65**	**65**
		NBL	300	AM	120	125
				PM	245	245
		SBL	160	AM	#90	#90
				PM	#140	#140
8	Los Osos Valley Road/Auto Parkway (Project Driveway)	EBL	100	AM	-	60
				PM	-	70
		EBR	100	AM	-	0
				PM	-	10
		WBL	Trap Lane	AM	35	35
				PM	50	70
		WBR	175	AM	20	-
				PM	45	-
		NBL	200	AM	-	30
				PM	-	50
		SBL	100	AM	45	50
				PM	30	55
		SBR	100	AM	-	10
				PM	-	-
9	Los Osos Valley Road/Calle Joaquin	EBL	260	AM	30	30
				PM	40	40
		EBR	260	AM	15	15
				PM	20	20
		WBL	100	AM	55	55
				PM	**130**	**130**
		NBL	130	AM	10	15
				PM	m15	m15
		NBR	130	AM	25	20
				PM	m10	m10
		SBL	120	AM	30	30
				PM	20	20
		SBR	120	AM	5	5
				PM	10	10
10	Los Osos Valley Road/US 101 SB Ramps	WBR	190	AM	125	145
				PM	**215**	**230**
		NBL	220	AM	m40	m40
				PM	m85	m90
		SBR	120	AM	45	65

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Scenario 1	Near Term Plus Project Scenario 1
				PM	**#275**	**#325**
11	Los Osos Valley Road/US 101 NB Ramps	EBL	610	AM	#380	#395
				PM	#425	#430
		NBL	400	AM	85	85
				PM	185	185
		SBR	133	AM	m0	m0
				PM	0	0
12	Los Osos Valley Road/S. Higuera Street	EBL	Trap Lane	AM	#440	#450
				PM	#420	#440
		EBR	100	AM	45	45
				PM	45	50
		NBL	200	AM	55	55
				PM	30	35
		SBR	Trap Lane	AM	115	120
				PM	300	330
14	S. Higuera Street/Suburban Road	WBL	Trap Lane	AM	70	70
				PM	185	185
		SBL	170	AM	75	75
				PM	#135	#140
15	S. Higuera Street/Tank Farm Road	EBR	Trap Lane	AM	0	0
				PM	0	0
		WBL	Trap Lane	AM	240	245
				PM	530	540
		WBR	250	AM	55	55
				PM	**310**	**310**
		NBL	140	AM	55	55
				PM	60	60
		NBR	100	AM	**185**	**190**
				PM	**120**	**125**
		SBL	165	AM	**#590**	**#610**
				PM	**#870**	**#870**
16	S. Higuera Street/Prado Road	EBL	300	AM	**#300**	**#320**
				PM	**#440**	**#465**
		EBR	300	AM	20	20
				PM	**325**	**310**
		WBL	105	AM	**120**	**120**
				PM	**235**	**235**
		WBR	410	AM	0	0
				PM	65	65
		NBL	300	AM	#140	#140
				PM	**#295**	**#275**
		SBL	200	AM	**#450**	**#450**
				PM	170	165
18		EBL	115	AM	40	45

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Scenario 1	Near Term Plus Project Scenario 1
	Madonna Road/Oceanaire Drive			PM	#50	#50
		WBL	115	AM	**#130**	**#130**
				PM	**#290**	**#290**
		WBR	100	AM	**220**	**220**
				PM	**#520**	**#520**
		NBR	50	AM	0	0
				PM	0	0
19	Madonna Road/Dalidio Drive	EBL	145	AM	50	45
				PM	70	70
		EBR	100	AM	**#600**	**#605**
				PM	**#480**	**#485**
		WBL	350	AM	#280	#280
				PM	#290	#290
		NBL	150	AM	**175**	**175**
				PM	**#510**	**#510**
		NBR	150	AM	5	5
				PM	150	150
		SBR	50	AM	0	0
				PM	0	0
20	Madonna Road/US 101 SB Ramps/Madonna Inn	EBL	100	AM	#55	#55
				PM	60	60
		WBL	260	AM	160	160
				PM	m#180	m#180
		NBL	Trap Lane	AM	170	170
				PM	#330	#330
		NBR	275	AM	20	20
				PM	40	40
		SBL	Trap Lane	AM	20	20
				PM	20	20
		SBR	100	AM	0	0
				PM	0	0
21	Madonna Road/US 101 NB Ramps	EBL	435	AM	150	150
				PM	#320	#330
		NBL	185	AM	90	90
				PM	110	110

Queue length rounded to nearest five feet. Queuing analysis is reported for signalized intersections only.
Bold: 95th percentile volume exceeds capacity.
m queue is metered by upstream intersection.
95th percentile queue exceeds capacity
Trap - denotes design where the thru-lane terminates in a turn-lane.
Westbound thru-lane (WBL); Westbound right-turn lane (WBR); Eastbound thru-lane (EBL); Northbound thru-lane (NBL); Northbound right-turn lane (NBR); Northbound trap (NBT); Southbound thru-lane (SBL); Southbound trap (SBT); Southbound right-turn lane (SBR)

As shown in **Table 3.1-62**, the addition of Project traffic would exacerbate 95th percentile turning movement queues that exceed lane capacity during a.m. or p.m. peak hours at the following intersections under Near Term plus Project Scenario 1 conditions:

- Los Osos Valley Road and Foothill Boulevard (SBL during a.m. peak hour)
- Los Osos Valley Road and Madonna Road (SBL during p.m. peak hour)
- Los Osos Valley Road and US 101 SB Ramps (SBR and WBR during p.m. peak hour)
- S Higuera Street and Tank Farm Road (NBR during both the a.m. and p.m. peak hours and SBL during a.m. peak hour)
- S Higuera Street and Prado Road (EBL during both the a.m. and p.m. hours)
- Madonna Road and Oceanaire Drive (WBL and WBR during both the a.m. and the p.m. hours)
- Madonna Road and Dalidio Drive (EBR during both the a.m. and the p.m. peak hours)

Table 3.1-63 through **Table 3.1-66** provides a summary of the multimodal a.m. and p.m. peak hour segment LOS under Near Term Scenario 1 plus Project conditions.

As shown in **Table 3.1-63**, under the Near Term Scenario 1 plus Project conditions the Project would not further degrade already exceeded LOS standards and decrease the average speed by 1 mph or more that exceed City's minimum automobile LOS threshold, thus resulting in a potentially significant impact.

As shown in **Table 3.1-64**, under Near Term Scenario 1 plus Project Conditions, the Project would further degrade already exceeded LOS standards that exceed the City's minimum pedestrian LOS threshold, thus resulting in a potentially significant impact at the following locations:

- Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive operates at LOS D during a.m. and p.m. peak hour in the southbound direction and operates at LOS D during p.m. peak hour in northbound direction.
- Los Osos Valley Road from Madonna Road to Froom Ranch Way operates at LOS F during a.m. peak hour in the northbound direction and operates at LOS D during p.m. peak hour in the northbound direction.
- Los Osos Valley Road from Froom Ranch Way to Calle Joaquin operates at LOS D during p.m. peak hour in the southbound direction.
- Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps operates at LOS D in southbound direction during a.m. and p.m. peak hours and operates at LOS D in northbound direction during p.m. peak hour.
- Los Osos Valley Road from US 101 NB Ramps to South Higuera Street operates at LOS D during a.m. and p.m. peak hour in the southbound direction and during a.m. peak hour in the northbound direction.
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS D during p.m. peak hours in the southbound direction.

- South Higuera Street from Tank Farm Road to Prado Road operates at LOS F during a.m. and p.m. peak hours in the southbound direction.
- Madonna Road from Los Osos Valley Road to Dalidio Drive operates at LOS F in eastbound direction during a.m. peak hour. In the westbound direction the segment is projected to operate at LOS F during a.m. peak hour and at LOS D during p.m. peak hour.

Due to the proximity of the Bob Jones Trail, which provides a low-stress route for pedestrians parallel to South Higuera between Los Osos Valley Road and Prado Road, the pedestrian impacts to segments of South Higuera Street are not considered to be contextually significant.

A Class I Path is planned to be installed along the west side of Madonna Road between Oceanaire and the US 101 SB Ramps intersection as a condition of the San Luis Ranch development and is expected to be in place for baseline Near Tern conditions. Considering the proximity of this facility and the availability of the Madonna frontage roads sidewalks as a low-stress alternative to Madonna Road, the pedestrian segment impacts along Madonna Road are not considered to be contextually significant.

As shown in **Table 3.1-65** and **Table 3.1-66**, under Near Term plus Project conditions Scenario 1 the Project would not cause minimum LOS standards to be exceeded that exceed City's minimum bicycle and transit LOS threshold, thus resulting in a potentially significant impact.

As shown in **Table 3.1-67** and **Table3.1-68**, under Near Term plus Project Scenario 1 conditions the Project would not increase the density by 5% or more at the facility that would exceed Caltrans minimum LOS thresholds.

Detailed roadway segment analysis worksheets are included in **Appendix C**, detailed freeway analysis worksheets for mainline, merge and diverge worksheets are attached in **Appendix D**, and detailed Leisch method analysis worksheets for weave segments are attached in **Appendix E**.

Table 3.1-63: Near Term Scenario 1 plus Project Segment LOS: Automobile Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	31.77	45.46	69.89%	B	33.26	45.46	73.2%	B
		NB	D	28.86	45.45	63.50%	C	27.62	45.45	60.8%	C
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	**11.54**	**42.64**	**27.06%**	**F**	**9.63**	**42.64**	**22.6%**	**F**
		NB	D	23.73	45.68	51.95%	C	22.23	45.68	48.7%	D
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	26.89	44.82	60.00%	C	18.01	40.18	44.8%	D
		NB	D	18.58	44.83	41.45%	D	**16.95**	**44.82**	**37.8%**	**E**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	37.10	44.80	82.81%	A	33.77	44.80	75.4%	B
		NB	D	31.62	45.22	69.92%	B	25.09	45.22	55.5%	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	21.86	45.33	48.22%	D	**17.91**	**45.33**	**39.5%**	**E**
		NB	D	19.33	40.66	47.54%	D	24.07	45.36	53.1%	C
6	Los Osos Valley Road from US 101 NB Ramps to South Higuera Street	SB	D	26.89	40.64	66.17%	C	22.44	40.78	55.0%	C
		NB	D	29.60	41.19	71.86%	B	31.25	45.77	68.3%	B
7	South Higuera Street from City Limit south to US 101/Clover Ridge Lane	SB	D	44.54	45.72	97.42%	A	43.73	45.72	95.6%	A
		NB	D	40.72	45.73	89.04%	A	42.10	45.73	92.1%	A
8	South Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	23.79	45.33	52.48%	C	19.79	45.34	43.6%	D
		NB	D	**17.82**	**45.68**	**39.01%**	**E**	**13.87**	**45.69**	**30.4%**	**E**
9	South Higuera Street from Tank Farm Road to Prado Road	SB	D	31.17	45.21	68.94%	B	25.03	45.23	55.3%	C
		NB	D	26.04	45.21	57.60%	C	25.62	45.24	56.6%	C

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
10	Tank Farm Road from South Higuera Street to Broad Street	EB	D	34.30	43.15	79.49%	B	34.16	43.15	79.2%	B
		WB	D	33.89	42.40	79.93%	B	33.75	42.38	79.6%	B
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	18.12	38.92	46.56%	D	22.16	39.14	56.6%	C
		WB	D	19.72	38.84	50.77%	C	20.62	39.15	52.7%	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	37.38	41.09	90.97%	A	36.77	41.09	89.5%	A
		WB	D	31.44	41.08	76.53%	B	27.64	41.08	67.3%	B
13	Commercial Collector A from Los Osos Valley Road to Collector B	EB	D	32.93	39.37	83.64%	A	32.92	39.37	83.6%	A
		WB	D	30.25	39.37	76.84%	B	29.82	39.37	75.7%	B

Notes:
Bold indicates unacceptable operations.

Table 3.1-64: Near Term Scenario 1 plus Project Segment LOS: Pedestrian Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	C	**3.68**	**D**	**3.56**	**D**
		NB	C	3.31	C	**4.13**	**D**
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	C	3.42	C	3.27	C
		NB	C	2.80	C	3.20	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	C	3.28	C	3.40	C
		NB	C	**3.22**	**F**	**3.63**	**D**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	C	3.31	C	**3.73**	**D**
		NB	C	3.38	C	3.41	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	C	**3.64**	**D**	**3.51**	**D**
		NB	C	3.31	C	**3.70**	**D**
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	C	**4.25**	**D**	**3.78**	**D**
		NB	C	**3.75**	**D**	3.38	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	C	2.90	C	**3.93**	**D**
		NB	C	3.35	C	3.04	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	C	**3.53**	**F**	**4.29**	**F**
		NB	C	2.63	C	3.33	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	C	**4.52**	**F**	3.04	C
		WB	C	**3.15**	**F**	**3.97**	**D**
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	C	2.24	B	2.88	C
		WB	C	2.81	C	3.05	C
13	Commercial Collector A from Los Osos Valley Road to Collector B	EB	C	2.79	C	2.85	C
		WB	C	2.14	B	2.44	C

Notes:
Bold indicates unacceptable operations.

Table 3.1-65: Near Term Scenario 1 plus Project Segment LOS: Bicycle Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.04	B	2.70	C
		NB	D	1.61	A	1.89	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.35	C	2.27	C
		NB	D	1.56	A	1.81	A
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	2.61	C	2.63	C
		NB	D	1.49	A	1.86	A
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	2.44	C	2.67	C
		NB	D	1.86	A	2.02	B
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	2.81	C	2.79	C
		NB	D	2.52	C	2.90	C
6	Los Osos Valley Road from US 101 NB Ramps to South Higuera Street	SB	D	2.40	C	2.25	C
		NB	D	1.56	A	1.97	A
7	South Higuera Street from City Limit south to US 101/Clover Ridge Lane (No Ped or Transit LOS)	SB	D	1.55	A	1.78	A
		NB	D	1.60	A	1.48	A
8	South Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	2.91	C	2.93	C
		NB	D	2.59	C	2.94	C
9	South Higuera Street from Tank Farm Road to Prado Road	SB	D	2.50	C	2.73	C
		NB	D	2.09	B	2.41	C
10	Tank Farm Road from South Higuera Street to Broad Street (No Ped or Transit LOS)	EB	D	2.74	C	2.71	C
		WB	D	2.90	C	2.99	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.15	C	2.98	C

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
		WB	D	1.96	A	2.48	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	0.69	A	0.88	A
		WB	D	1.12	A	1.32	A
13	Commercial Collector A from Los Osos Valley Road to Collector B	EB	D	0.48	A	2.5	C
		WB	D	0.91	A	2.62	C

Notes: Bold indicates unacceptable operations.

Table 3.1-66: Near Term Scenario 1 plus Project Segment LOS: Transit Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.92	C	2.89	C
		NB	D	1.76	A	1.97	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.53	C	2.62	C
		NB	D	2.78	C	2.90	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	3.54	D	3.92	D
		NB	D	2.06	B	2.15	B
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	3.00	C	3.16	C
		NB	D	3.26	C	3.44	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	3.78	D	3.46	C
		NB	D	3.45	D	3.35	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	3.27	D	3.91	D
		NB	D	4.15	C	3.06	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	3.59	D	4.02	D
		NB	D	3.33	C	4.21	D
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.59	D	3.23	C
		WB	D	3.28	C	3.39	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	0.54	A	0.64	A
		WB	D	1.03	A	1.32	A

Notes: Segments with no transit stops are excluded from the analysis.

Table 3.1-67: Near Term Scenario 1 plus Project Segment LOS: Freeway Mainline, Ramp & Weaving Segment Analysis

#	Interchange Location	Target LOS	Segment Type	Lanes	AM Peal Hour			PM Peal Hour		
					Volume	Density (pc/mi/ln)	LOS	Volume	Density (pc/mi/ln)	LOS
US 101 Northbound										
	US 101 NB, south of S Higuera Street	C	Freeway	2	2,542	21.6	C	2,589	22.0	C
	US 101 NB, south of Los Osos Valley Road	C	Freeway	2	2,829	24.2	C	2,174	18.5	C
	US 101 NB Los Osos Valley Road Off Ramp	C	Diverge	1	687	**29.3**	**D**	720	22.5	C
	US 101 NB Los Osos Valley Road On Ramp	C	Merge	1	168	28.9	C	513	25.6	C
	US 101 NB, north of Prado Road	C	Freeway	2	2,524	21.4	C	2,431	20.6	C
	US 101 NB Prado Road Off Ramp	C	Diverge	1	456	25.9	C	227	24.7	C
	US 101 NB Prado Road On Ramp	C	Merge	1	367	27.9	C	402	26.5	C
	US 101 NB, south of Madonna Road	C	Freeway	3	3,101	17.6	B	3,377	19.1	C
	US 101 NB, Madonna Road Off Ramp	C	Diverge	1	310	19.6	C	268	21.2	C
US 101 Southbound										
	US 101 SB, north of Madonna Road	C	Freeway	2	2,149	18.2	C	3,194	**27.9**	**D**
	US 101 SB Madonna Road On Ramp	C	Merge	1	190	22.4	C	278	**34.8**	**D**
	US 101 SB, north of Prado Road	C	Freeway	2	1,997	17.0	B	3,249	**28.5**	**D**
	US 101 SB, south of Los Osos Valley Road	C	Freeway	2	1,329	11.3	B	2,409	20.4	C
	US 101 SB Los Osos Valley Road Off Ramp	C	Diverge	1	626	13.7	B	568	24.8	C
	US 101 SB Los Osos Valley Road On Ramp	C	Merge	1	407	16.3	B	723	**30.6**	**D**
	US 101 SB, north of S Higuera Street	C	Freeway	2	2,372	20.1	C	3,826	**36.5**	**E**

Notes: Bold indicates unacceptable operations.

Table 3.1-68: Near Term Scenario 1 plus Project Weaving Segment LOS: Leisch Method

Interchange Location	Target LOS	Segment Type	No. of Lanes	Length	AM Peak		PM Peak	
					Total Volume	LOS	Total Volume	LOS
US 101 Northbound								
Between Los Osos Valley Road and Prado Road	C	Weave	2	4,380	3,466	A	3,169	A
Between Prado Road and Madonna Road	C	Weave	3	2,280	3,624	A	3,910	A
US 101 Southbound								
Between Madonna Road and Los Osos Valley Road	C	Weave	2	5,490	2,971	A	4,191	A

3.3.6 Near-term Scenario 1 Projects Impacts and Mitigation Measures

This section presents the project-related impacts and mitigation measures at the study intersections and segments under Near-term Scenario 1 plus Project Conditions, based on the significance thresholds identified previously.

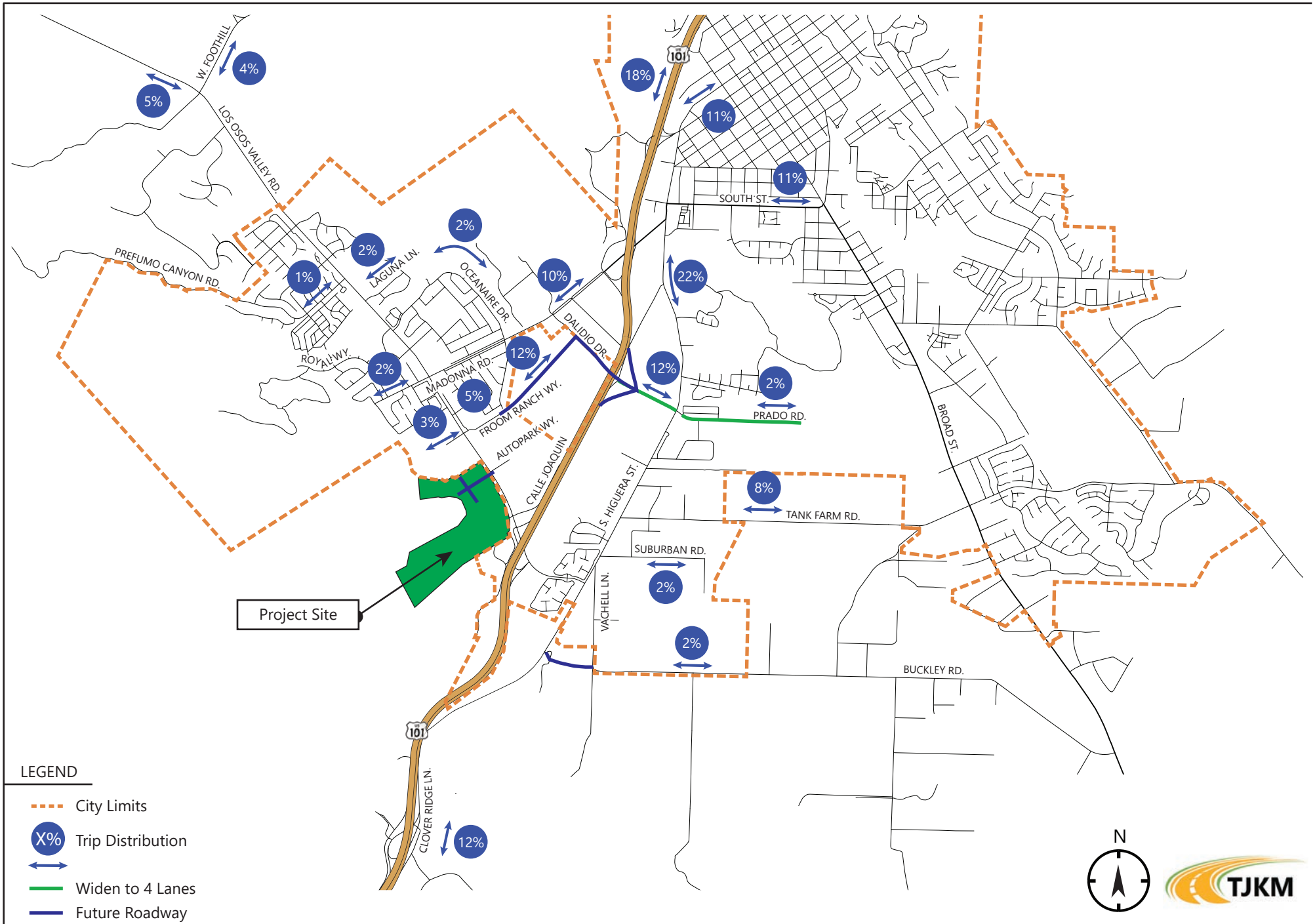
Table 3.1-69: Near Term Scenario 1 Impacts & Mitigation Measures

Location	Trigger	Mode	Impact	Mitigation Measure
Near Term Scenario 1 Plus Project Impacts and Mitigation Measures				
Intersection #1: Los Osos Valley Road & Foothill Boulevard	Phase 2	Auto (Queue)	Addition of project traffic will exacerbate the southbound left-turn queue in the a.m. peak hour that would exceed capacity.	Optimize signal timing to increase the allocation of green-time to the southbound left-turn (with no increase in total cycle length). *Requires County approval and coordination*
Intersection #6: Los Osos Valley Road & Madonna Road	Phase 2	Auto (Queue)	Addition of project traffic will exacerbate the existing southbound left-turn queue that would exceed capacity during the a.m. peak hour	Restripe the southbound left-turn lanes to increase turn pocket storage to 365 feet and optimize signal timings to improve operations and reduce queuing at the southbound left-turn lane.
Intersection #10: Los Osos Valley Road & US 101 SB Ramps	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the existing southbound right queue and westbound right queue in the p.m. peak hour.	Existing Plus Project Mitigation
Intersection #15: S Higuera Street & Tank Farm Road	Phase 2 Phase 4	Bicycle Auto (Queue)	Project traffic would exacerbate existing unacceptable intersection LOS for bicycles approaching the intersection westbound on Tank Farm Road. Addition of project traffic will exacerbate the northbound right turn queue during both a.m. and p.m. peak hour and southbound left queue in the a.m. peak hour.	Existing Plus Project Mitigation. Extend northbound right-turn pocket storage to 230 feet. Project is responsible for implementation of bicycle improvements prior to Phase 2. Project is responsible for turn lane improvements prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others. ***This impact under Near Term Scenario 1 plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***

Location	Trigger	Mode	Impact	Mitigation Measure
Intersection #16: S Higuera Street & Prado Road	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the eastbound left queue in the a.m. and p.m. peak hours	Restripe intersection to accommodate a second southbound left-turn lane and second eastbound through lane. Requires striping modifications and potential street parking removal on east leg of intersection. Project is responsible for implementation prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others.
Intersection #19: Madonna Road & Dalidio Drive	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the eastbound right queue during both the a.m. and p.m. peak hour	Modify traffic signal to provide eastbound right-turn overlap phase concurrent with northbound left-turn phase. Project is responsible for implementation prior to Phase 4, or fair-share contribution if improvements are constructed sooner by others.
Roadway Segment #1: Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive.	Phase 2	Pedestrian	Roadway segments on Los Osos Valley Road operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation
Roadway Segment #2: Los Osos Valley Road from Oceanaire Drive to Madonna Road	Phase 2	Pedestrian	Roadway segment operates at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation
Roadway Segments #3, #4, #5 and #6: Los Osos Valley Road from Madonna Road to S. Higuera Street	Phase 2	Pedestrian	Roadway segments operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation

Location	Trigger	Mode	Impact	Mitigation Measure
Roadway Segment #5: Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	Phase 4	Auto	With addition of traffic from the proposed project, Automobile LOS would exceed City's standard in southbound direction during p.m. peak hour	Optimize signal timings at three adjacent intersections that operate on coordinated cycles: Los Osos Valley Road & US 101 NB Ramps; Los Osos Valley Road & Calle Joaquin; and Los Osos Valley Road & US 101 SB Ramps. Project is responsible for implementation prior to Phase 4, or fair-share contribution if improvements are constructed sooner by others. *Requires Caltrans Coordination.*

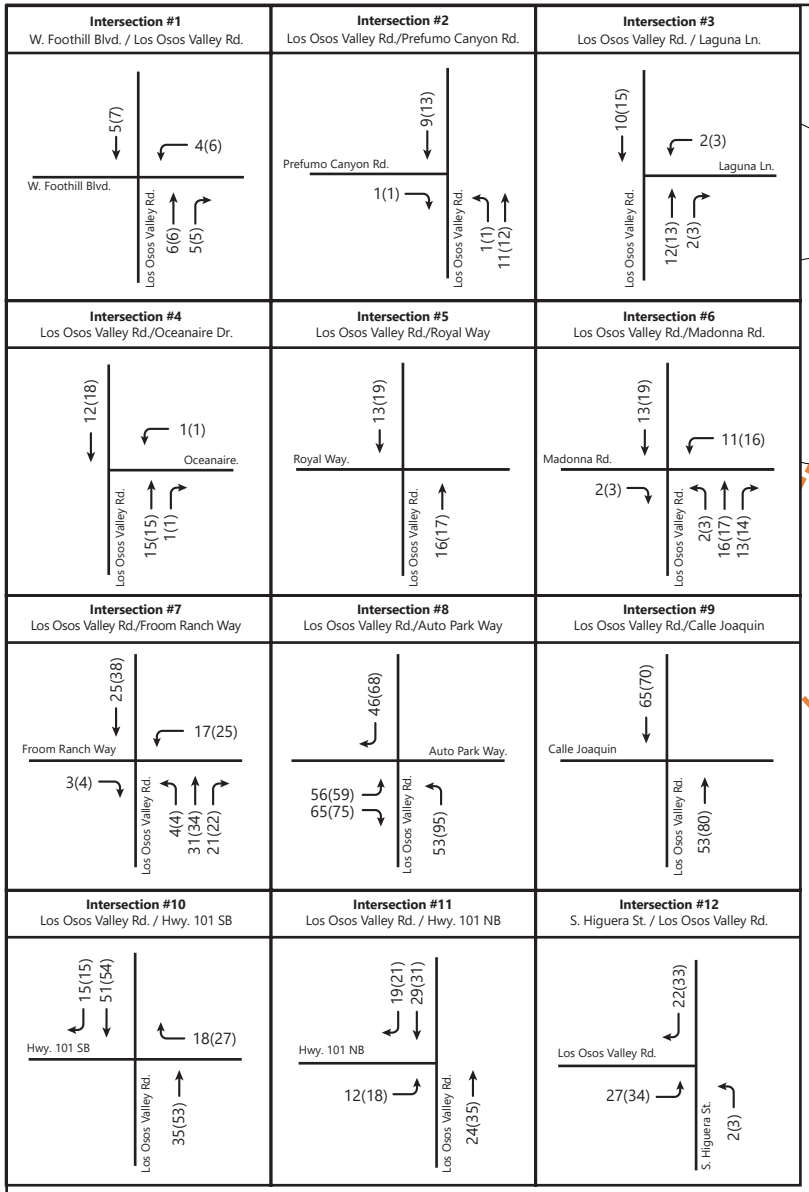
Near Term (2025) Scenario 1 Trip Distribution



292-003

Figure 3.1-16

Near Term (2025) Scenario 1 Trip Assignment



LEGEND

- X — Study Intersection ID
- XX — AM Peak Hour Trips
- (XX) — PM Peak Hour Trips
- Widen to 4 Lanes
- Future Roadway
- X — Future Intersection
- City Limits

Figure 3.1-17

Near Term (2025) Scenario 1 Trip Assignment

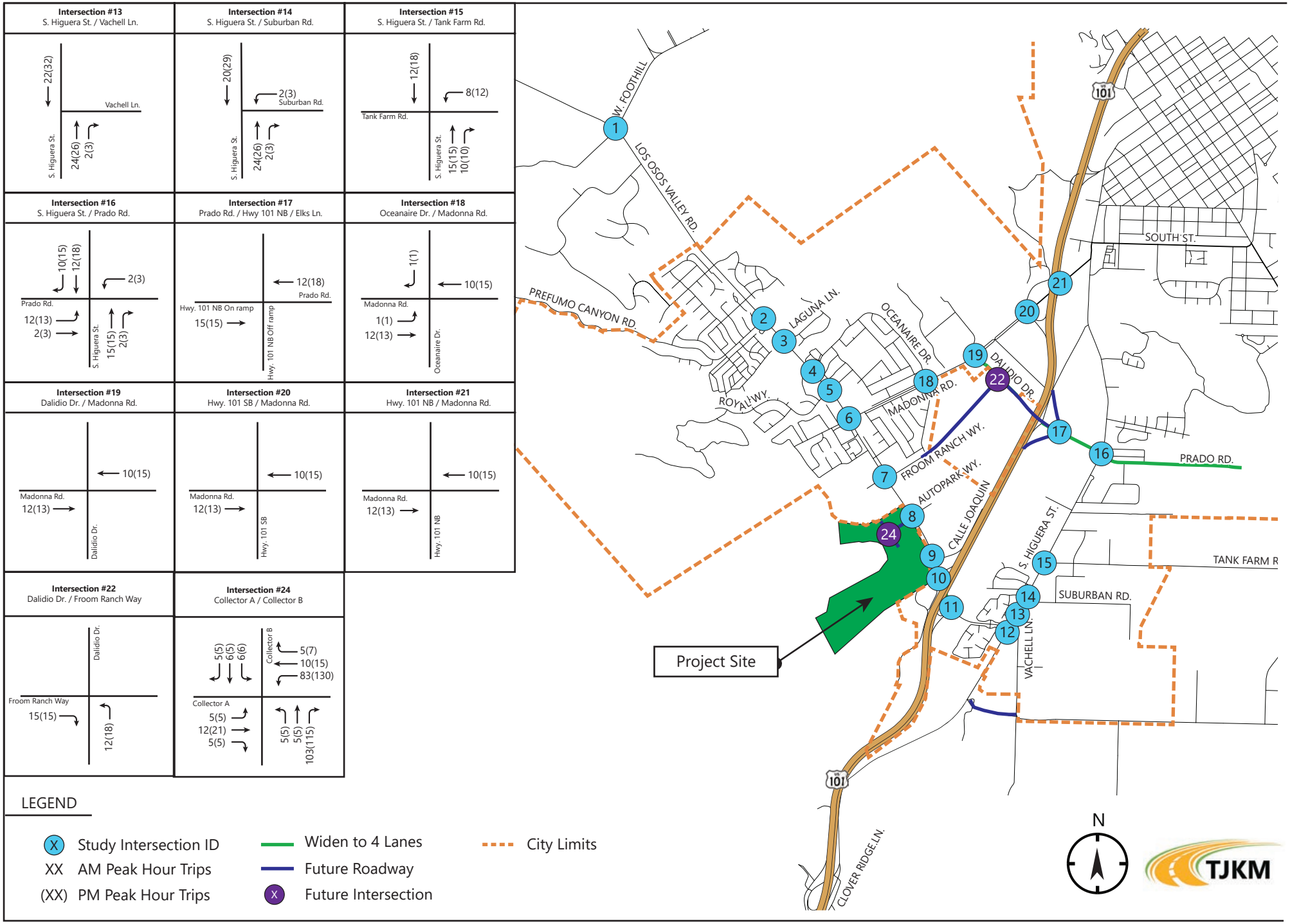
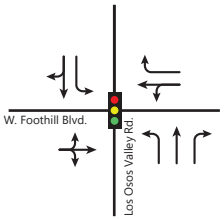


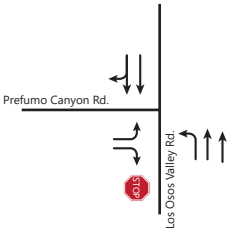
Figure 3.1-17

Near Term plus Project Scenario 1 Lane Geometry and Traffic Controls

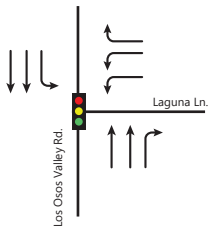
Intersection #1
W. Foothill Blvd. / Los Osos Valley Rd.



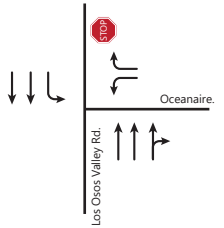
Intersection #2
Los Osos Valley Rd./Prefumo Canyon Rd.



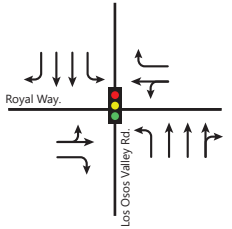
Intersection #3
Los Osos Valley Rd. / Laguna Ln.



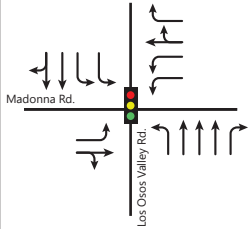
Intersection #4
Los Osos Valley Rd./Oceanaire Dr.



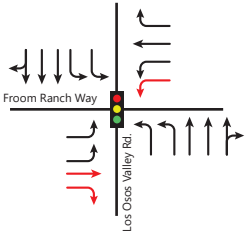
Intersection #5
Los Osos Valley Rd./Royal Way



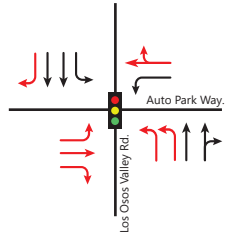
Intersection #6
Los Osos Valley Rd./Madonna Rd.



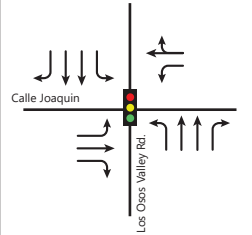
Intersection #7
Los Osos Valley Rd./Froom Ranch Way



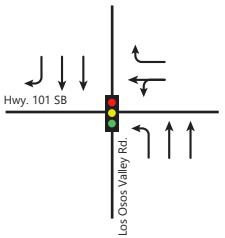
Intersection #8
Los Osos Valley Rd./Auto Park Way



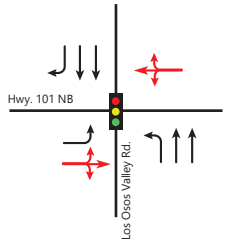
Intersection #9
Los Osos Valley Rd./Calle Joaquin



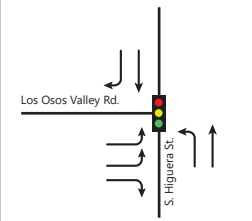
Intersection #10
Los Osos Valley Rd. / Hwy. 101 SB

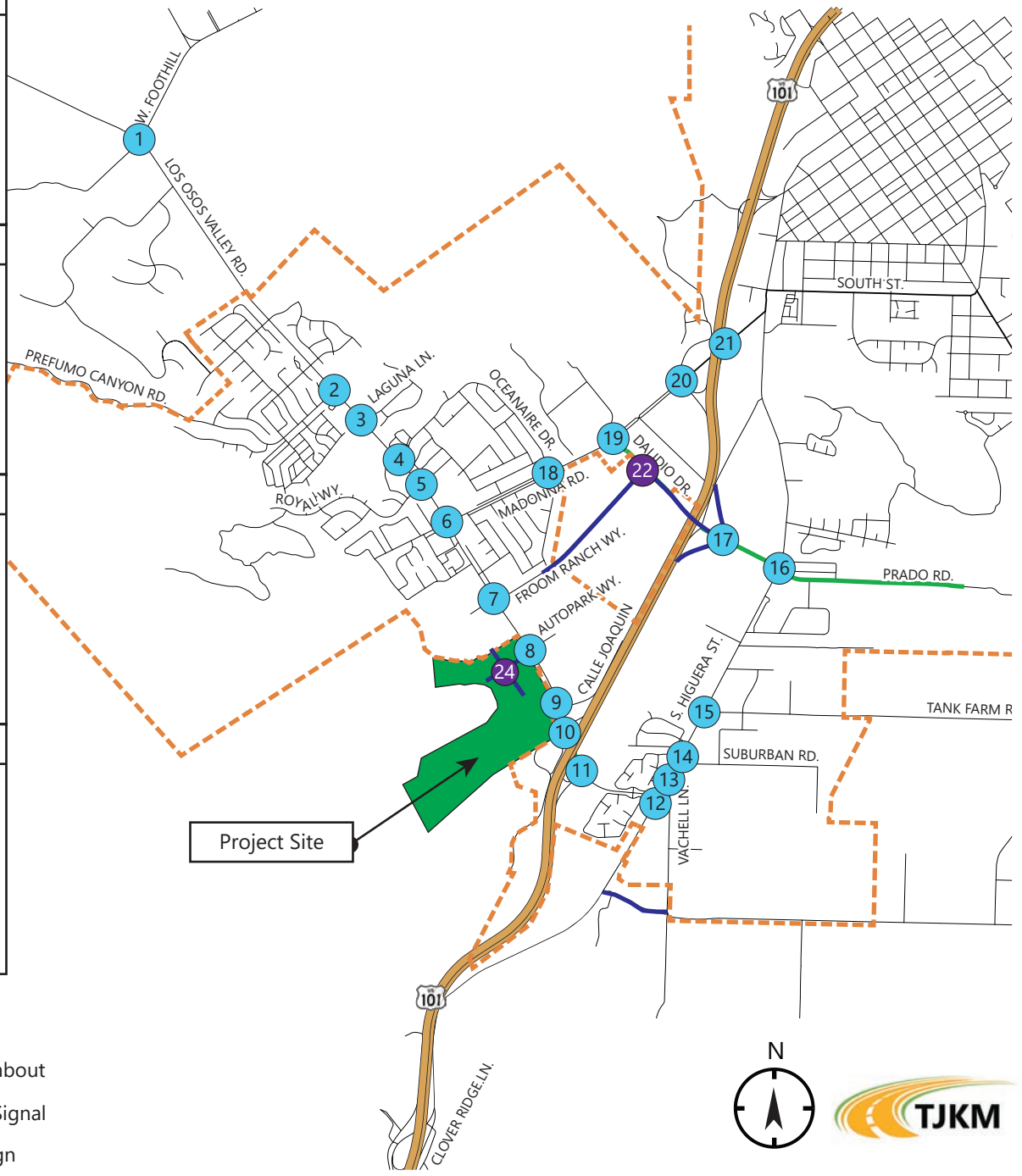


Intersection #11
Los Osos Valley Rd. / Hwy. 101 NB



Intersection #12
S. Higuera St. / Los Osos Valley Rd.





LEGEND

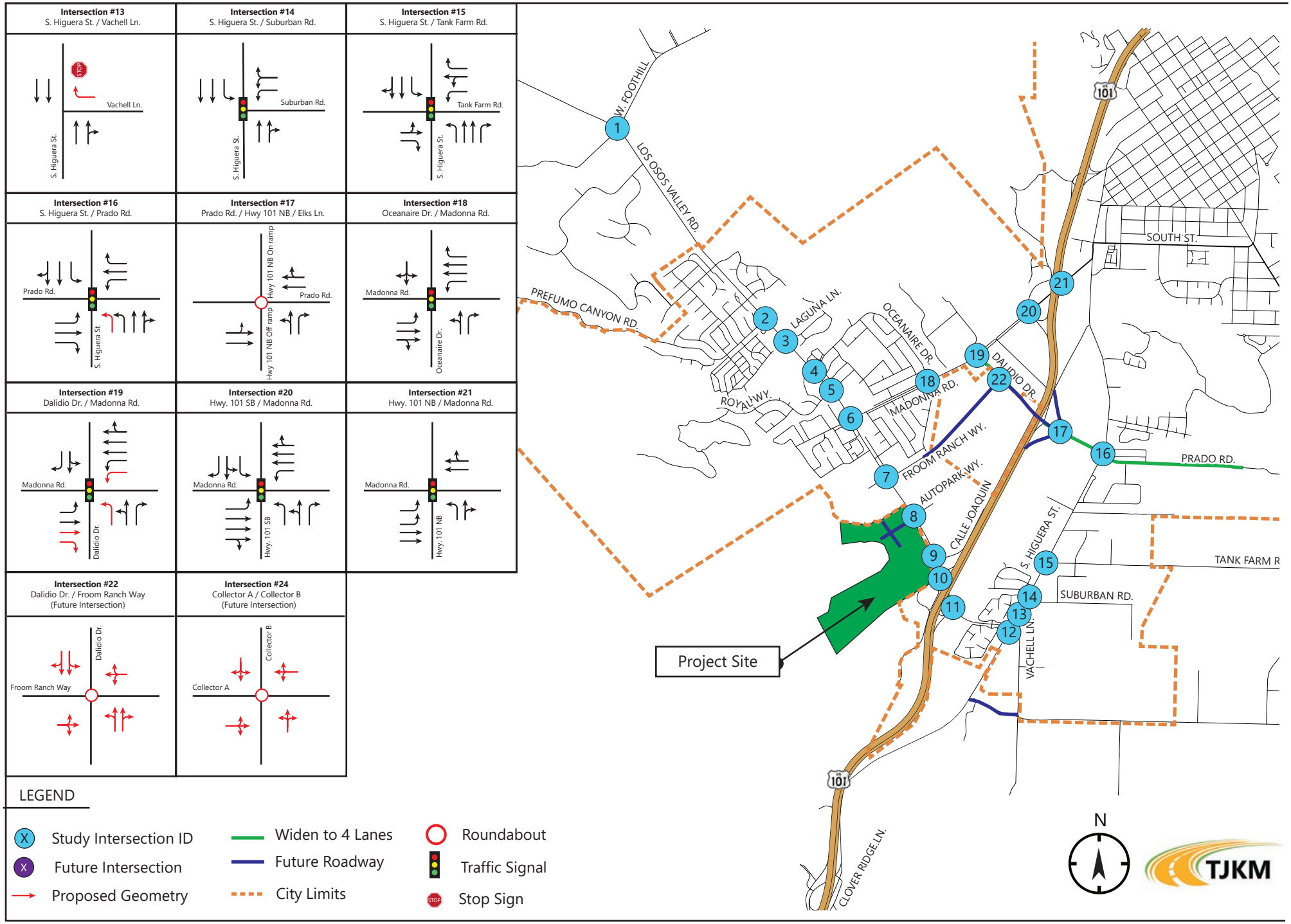
- X — Study Intersection ID
- X — Future Intersection
- → Proposed Geometry
- Widen to 4 Lanes
- Future Roadway
- City Limits
- Roundabout
- Traffic Signal
- STOP Stop Sign

N

TJKM

Figure 3.1-18

Near Term plus Project Scenario 1 Lane Geometry and Traffic Controls



292-003

Figure 3.1-18

Near Term Plus Project Scenario 1 Turning Movement Volumes

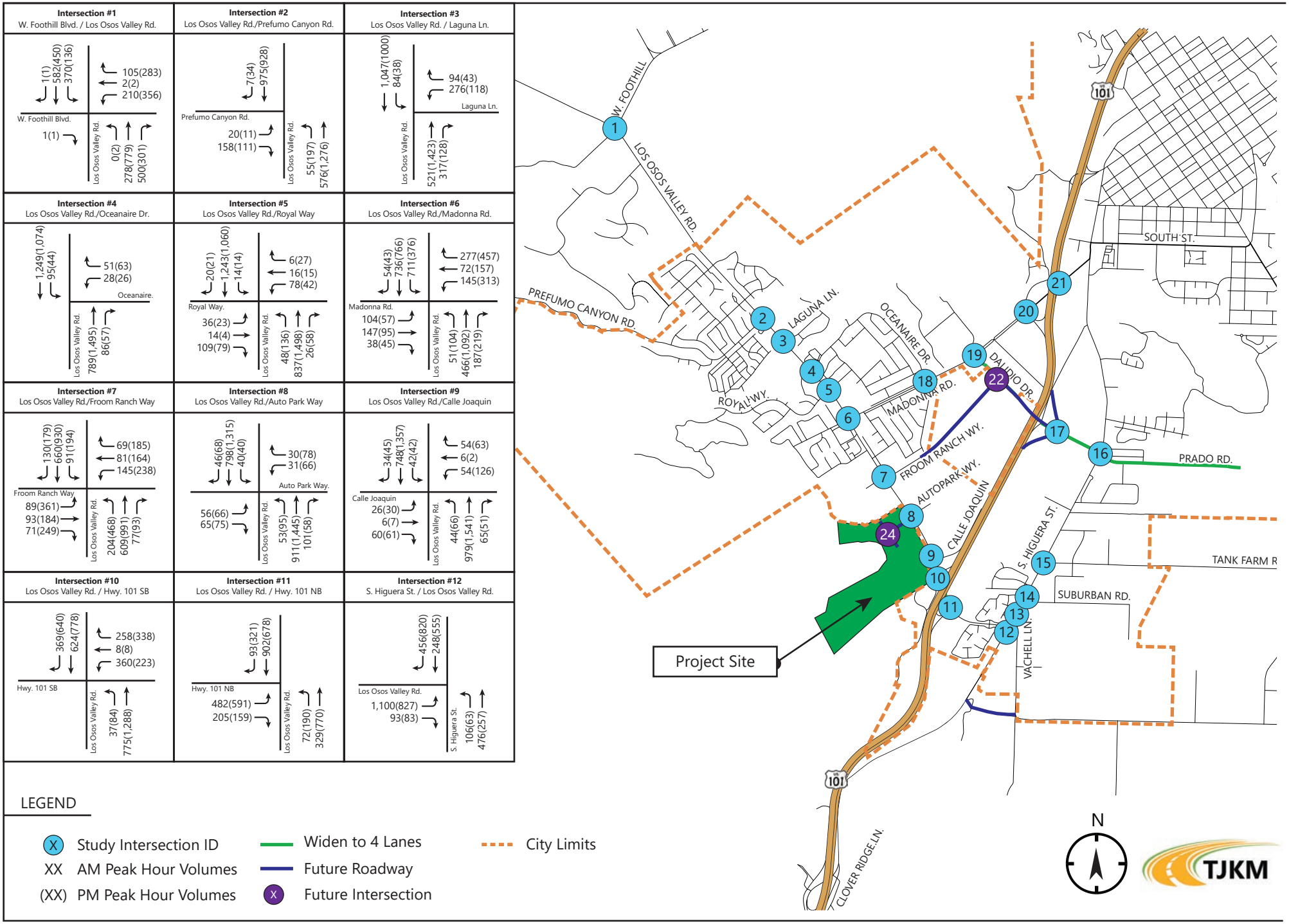
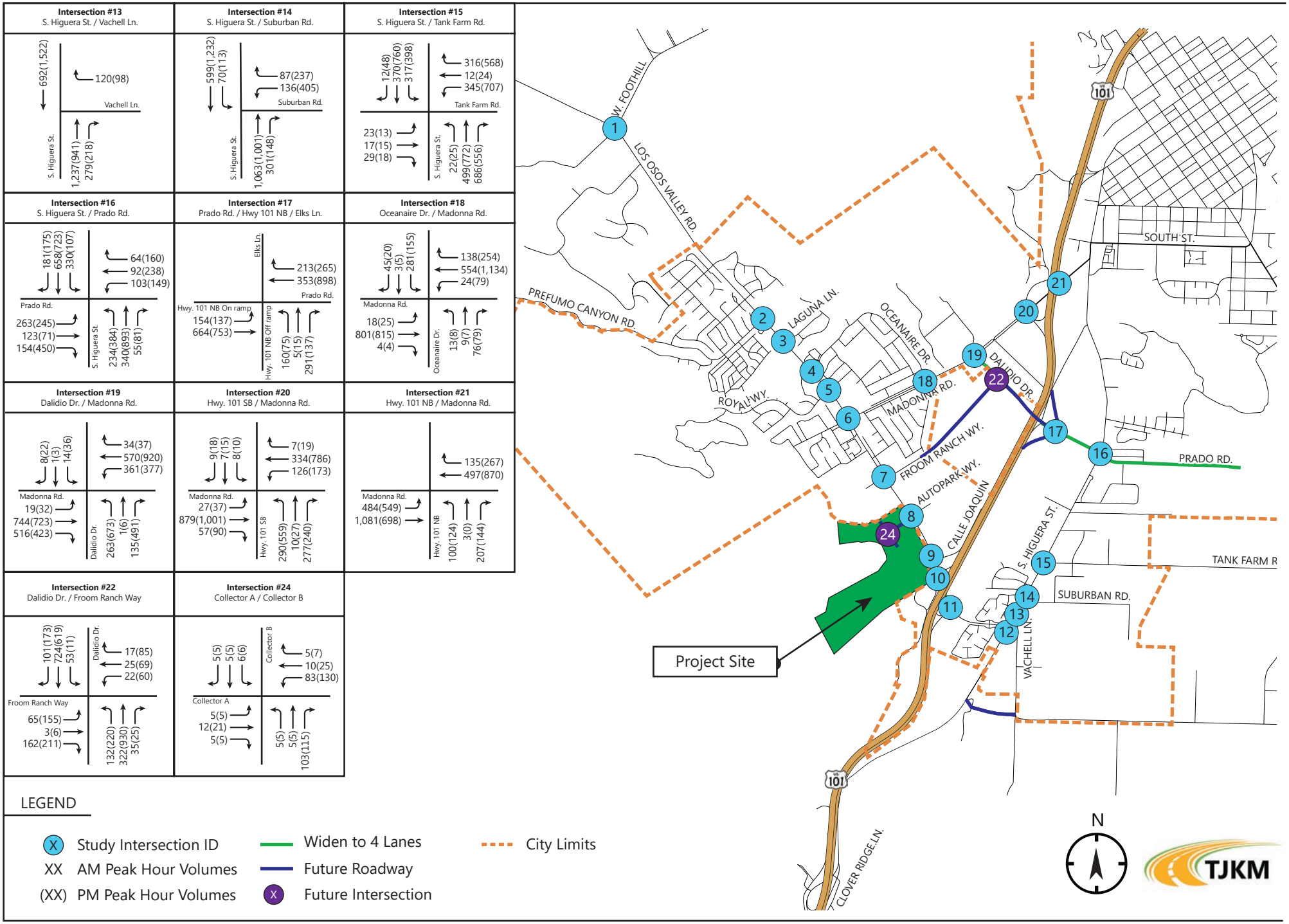


Figure 3.1-19

Near Term Plus Project Scenario 1 Turning Movement Volumes



292-003

Figure 3.1-19

3.3.7 Near Term Scenario 2 Plus Project Conditions LOS Analysis

This section describes the transportation impact analysis under Near Term Scenario 2 plus Project conditions. The LOS and queuing results are provided in **Table 3.1-70** through **Table 3.1- 73** below. Near Term Scenario 2 baseline results were compared with Near Term Scenario 2 plus Project conditions to determine the degree of change projected for each of the intersections and roadway segments. The Near Term Scenario 2 plus Project LOS was also compared with City thresholds to determine where significant impacts may occur as a result of Project implementation. A description of the LOS and queuing results is provided below.

Figure 3.1-19 shows Project trip distribution pattern for Near Term Scenario 2 plus Project conditions. **Figure 3.1-20** shows Project trip assignment for Near Term Scenario 2 plus Project conditions. **Figure 3.1-21** shows the Near Term Scenario 2 plus Project peak hour traffic volumes at the study intersections. Detailed Synchro LOS worksheets are included in **Appendix A**.

Table 3.1-70: Near Term Scenario 2 plus Project Intersection LOS – Automobile

ID	Study Intersections	LOS Target		Near Term-Scenario 2			Near Term Scenario 2+Project			
			Peak Hour	Delay[1]	LOS[2]	V/C[3]	Delay[1]	LOS[2]	V/C[3]	Change in V/C
1	Los Osos Valley Road & Foothill Boulevard	D	AM	32.7	C		33.6	C		
			PM	55.0	D	1.00	54.6	D		
2	Los Osos Valley Road & Prefumo Canyon Road	D	AM	21.9	C		22.3	C		
			PM	29.6	D		31.1	D		
3	Los Osos Valley Road & Laguna Lane	D	AM	14.1	B		14.2	B		
			PM	8.9	A		9.0	A		
4	Los Osos Valley Road & Oceanaire Drive	D	AM	**129.6**	**F**	**1.08**	**150.5**	**F**	**1.19**	**0.11**
			PM	**104.0**	**F**	**0.94**	**119.6**	**F**	**1.04**	**0.10**
5	Los Osos Valley Road & Royal Way	D	AM	41.6	D		42.7	D		
			PM	19.3	B		19.5	B		
6	Los Osos Valley Road & Madonna Road	D	AM	34.6	C		35.1	D		
			PM	46.6	D		47.1	D		
7	Los Osos Valley Road & Froom Ranch Way	D	AM	20.8	C		21.5	C		
			PM	37.3	D		38.4	D		
8	Los Osos Valley Road & Auto Park Way	D	AM	6.5	A		14.5	B		
			PM	9.4	A		15.0	B		
9	Los Osos Valley Road & Calle Joaquin	D	AM	5.9	A		5.8	A		
			PM	9.5	A		9.7	A		
10	Los Osos Valley Road & US 101 SB Ramps	C	AM	16.3	B		18.8	B		
			PM	21.4	C		26.9	C		
11	Los Osos Valley Road & US 101 NB Ramps	C	AM	23.8	C		23.9	C		
			PM	29.1	C		27.7	C		
12	Los Osos Valley Road & S. Higuera Street	D	AM	19.4	B		22.1	C		
			PM	34.3	C		42.6	D		
13	S. Higuera Street & Vachelle Lane	D	AM	22.6	C		23.5	C		
			PM	16.1	C		16.7	C		
14	S. Higuera Street & Suburban Road[4]	D	AM	9.2	A		8.0	A		
			PM	14.4	B		15.0	B		
15	S. Higuera Street & Tank Farm Road	D	AM	29.9	C		29.2	C		
			PM	47.9	D		48.8	D		

ID	Study Intersections	LOS Target		Near Term-Scenario 2			Near Term Scenario 2+Project			
			Peak Hour	Delay[1]	LOS[2]	V/C[3]	Delay[1]	LOS[2]	V/C[3]	Change in V/C
16	S. Higuera Street & Prado Road	D	AM	27.5	C		28.1	C		
			PM	43.9	D		46.8	D		
17	Prado Road/US 101 NB Ramps & Elks Lane	C	AM	12.0	B		12.0	B		
			PM	22.9	C		23.8	C		
18	Madonna Road & Oceanaire Drive[4]	D	AM	45.8	D		45.5	D		
			PM	34.4	C		34.9	C		
19	Madonna Road & Dalidio Drive	D	AM	21.6	C		21.6	C		
			PM	28.8	C		28.9	C		
20	Madonna Road & US 101 SB Ramps/Madonna Inn	D	AM	33.2	C		33.3	C		
			PM	**43.6**	**D**	**1.21**	**43.4**	**D**	**1.21**	**0.00**
21	Madonna Road & US 101 NB Ramps	C	AM	17.8	B		23.0	C		
			PM	**54.4**	**D**	**1.15**	**56.4**	**E**	**1.17**	**0.02**
22	Dalidio Drive & Froom	D	AM	3.3	A		3.3	A		
			PM	3.5	A		3.4	A		
24	Collector A & Collector B (on-site)	D	AM	-	-		3.4	A		
			PM	-	-		3.6	A		

Notes:
[1]Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.
[2]LOS – Levels of Service
[3] Volume-to-capacity ratio reported for worst movement, for locations with unacceptable LOS only
[4]HCM 6th Methodology does not support intersections with more than four approaches. Hence HCM 2000 Methodology used for intersection 14 and 18
Bold indicates unacceptable operations.

As shown in **Table 3.1-70**, under Near Term plus Project Scenario 2 Conditions the project causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards for automobile at the following intersections:

- Los Osos Valley Road and Oceanaire operates at LOS F during the a.m. and p.m. peak hours, but conditions do not satisfy signal warrants
- Madonna Road and US 101 SB Ramps during p.m. peak hour

Table 3.1-71: Near Term Scenario 2 plus Project Intersection LOS – Pedestrian Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	C	1.75	B	1.75	B
		WB	C	2.50	C	2.45	B
		NB	C	2.76	C	2.83	C
		SB	C	2.83	C	2.98	C
2	Los Osos Valley Road & Prefumo Canyon Road	EB	C	n/a			
		WB	C				
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	**>5.0**	**F**	**>5.0**	**F**
3	Los Osos Valley Road & Laguna Lane	EB	C	n/a			
		WB	C	2.40	B	2.22	B
		NB	C	2.87	C	2.87	C
		SB	C	2.93	C	3.09	C
4	Los Osos Valley Road & Oceanaire Drive	EB	C	n/a			
		WB	C				
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	**>5.0**	**F**	**>5.0**	**F**
5	Los Osos Valley Road & Royal Way	EB	C	2.02	B	2.02	B
		WB	C	2.00	B	1.99	B
		NB	C	3.17	C	3.23	C
		SB	C	3.15	C	3.20	C
6	Los Osos Valley Road & Madonna Road	EB	C	2.15	B	2.16	B
		WB	C	3.01	C	3.13	C
		NB	C	3.05	C	3.29	C
		SB	C	3.42	C	**3.53**	**D**
7	Los Osos Valley Road & Froom Ranch Way	EB	C	2.64	C	2.75	C
		WB	C	2.56	C	2.59	C
		NB	C	3.17	C	3.34	C
		SB	C	3.14	C	3.32	C
8	Los Osos Valley Road & Auto Park Way	EB	C	2.21	B	2.23	B
		WB	C	2.02	B	2.04	B
		NB	C	3.10	C	3.41	C
		SB	C	3.06	C	3.39	C
9		EB	C	2.49	B	2.49	B

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
	Los Osos Valley Road & Calle Joaquin	WB	C	2.10	B	2.11	B
		NB	C	3.22	C	3.51	D
		SB	C	3.09	C	3.37	C
10	Los Osos Valley Road & US 101 SB Ramps	EB	C	1.97	B	2.34	B
		WB	C	2.31	B	2.26	B
		NB	C	3.09	C	3.23	C
		SB	C	3.14	C	3.45	C
11	Los Osos Valley Road & US 101 NB Ramps	EB	C	2.51	C	2.63	C
		WB	C	1.43	A	1.43	A
		NB	C	2.98	C	3.00	C
		SB	C	3.09	C	3.20	C
12	Los Osos Valley Road & S. Higuera Street	EB	C	2.91	C	3.02	C
		WB	C	n/a			
		NB	C	2.41	B	2.45	B
		SB	C	2.93	C	3.10	C
13	S. Higuera Street & Vachelle Lane	EB	C	n/a			
		WB	C				
		NB	C				
		SB	C				
14	S. Higuera Street & Suburban Road	EB	C	n/a			
		WB	C	2.22	B	2.30	B
		NB	C	3.10	C	3.32	C
		SB	C	2.85	C	3.04	C
15	S. Higuera Street & Tank Farm Road	EB	C	2.04	B	2.05	B
		WB	C	3.02	C	3.17	C
		NB	C	3.44	C	**3.67**	**D**
		SB	C	2.78	C	3.10	C
16	S. Higuera Street & Prado Road	EB	C	2.62	C	2.73	C
		WB	C	2.48	B	2.57	C
		NB	C	2.88	C	3.13	C
		SB	C	2.84	C	3.01	C
17	Prado Road/US 101 NB Ramps	EB	C	n/a			
		WB	C				
		NB	C				
		SB	C				
18	Madonna Road & Oceanaire Drive	EB	C	2.79	C	2.96	C
		WB	C	3.30	C	3.45	C
		NB	C	2.02	B	2.02	B
		SB	C	2.05	B	1.98	B
		SE	C	1.82	B	1.86	B
		NE	C	1.78	B	1.79	B
19	Madonna Road & Dalidio Drive	EB	C	3.11	C	3.25	C
		WB	C	3.18	C	3.28	C

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
		NB	C	2.52	C	2.65	C
		SB	C	1.99	B	2.00	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	C	3.01	C	3.17	C
		WB	C	3.06	C	3.11	C
		NB	C	2.85	C	2.87	C
		SB	C	2.17	B	2.19	B
21	Madonna Road & US 101 NB Ramps	EB	C	3.03	C	3.06	C
		WB	C	2.90	C	2.92	C
		NB	C	2.00	B	2.01	B
		SB	C	2.09	B	2.17	B

Notes:
[1]For unsignalized AWSC intersections, pedestrian delay is reported as pedestrian LOS methodology is not supported for crosswalks that intersect stop-sign controlled approaches. For unsignalized TWSC intersections, pedestrian LOS methodology is limited to the uncontrolled crossings.

As shown in **Table 3.1-71**, under Near Term plus Project Scenario 1 Conditions the project causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards for pedestrian LOS at following intersections:

- Los Osos Valley Road & Prefumo Canyon Road (#2): this side-street stop-sign controlled intersection operates with unacceptable intersection LOS for pedestrians due to the uncontrolled crossing of four motor vehicle lanes across Los Osos Valley Road. This impact is less than significant given the contextual location: no land uses are directly accessible on the east side of Los Osos Valley Road near this intersection, thus potential demand for pedestrian crossings is low.
- Los Osos Valley Road & Oceanaire Drive (#4): this side-street stop-sign controlled intersection operates with unacceptable intersection LOS for pedestrians due to the uncontrolled crossing of four motor vehicle lanes across Los Osos Valley Road. While Project traffic would exacerbate the unacceptable pedestrian LOS, this impact is considered to be less than significant given the contextual location and characteristics: there is very little existing pedestrian crossing demand, warrants for installation of a marked pedestrian crossing or enhanced crossing device (i.e. signal or pedestrian hybrid beacon) are unlikely to be met even if considering latent crossing demand, existing signalized crossings are present within one block to the north (Laguna Ln.) or south (Royal Way).
- Los Osos Valley Road and Madonna Road (#6): addition of project traffic exacerbates the unacceptable LOS crossing Los Osos Valley Road during the p.m. peak hour.
- S. Higuera Street & Tank Farm (#13): this signalized intersection operates with unacceptable intersection LOS for pedestrians at the northbound approach during the p.m. peak hour due to heavy traffic volumes and lengthy traffic signal cycle lengths. Addition of project traffic exacerbates these conditions.

Table 3.1-72: Near Term Scenario 2 plus Project Intersection LOS – Bicycle Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	D	2.71	C	2.71	C
		WB	D	3.35	C	4.06	D
		NB	D	2.95	C	3.24	C
		SB	D	2.74	C	2.01	B
3	Los Osos Valley Road & Laguna Lane	EB	D	n/a			
		WB	D	3.27	C	2.84	C
		NB	D	2.01	B	2.37	B
		SB	D	1.55	B	1.46	A
5	Los Osos Valley Road & Royal Way	EB	D	3.17	C	2.99	C
		WB	D	3.30	C	2.96	C
		NB	D	2.74	C	3.14	C
		SB	D	2.34	B	2.07	B
6	Los Osos Valley Road & Madonna Road	EB	D	3.42	C	3.27	C
		WB	D	3.70	D	**4.63**	**E**
		NB	D	1.74	B	2.27	B
		SB	D	2.93	C	2.69	C
7	Los Osos Valley Road & Froom Ranch Way	EB	D	3.50	D	4.37	D
		WB	D	2.26	B	2.50	C
		NB	D	1.92	B	2.47	B
		SB	D	1.81	B	1.94	B
8	Los Osos Valley Road & Auto Park Way	EB	D	2.89	C	2.90	C
		WB	D	2.97	C	3.12	C
		NB	D	3.18	C	3.81	D
		SB	D	3.33	C	3.71	D
9	Los Osos Valley Road & Calle Joaquin	EB	D	3.11	C	3.09	C
		WB	D	3.16	C	3.32	C
		NB	D	1.78	B	2.26	B
		SB	D	1.99	B	0.94	A
10	Los Osos Valley Road & US 101 SB Ramps	EB	D	n/a			
		WB	D	2.93	C	2.74	C
		NB	D	1.94	B	2.45	B
		SB	D	1.78	B	2.10	B
11	Los Osos Valley Road & US 101 NB Ramps	EB	D	3.96	D	3.96	D
		WB	D	1.39	A	1.39	A
		NB	D	1.98	B	2.36	B
		SB	D	2.50	C	2.44	B
12	Los Osos Valley Road & S. Higuera Street	EB	D	2.11	B	1.92	B
		WB	D	n/a			
		NB	D	2.23	B	1.87	B

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
		SB	D	2.54	C	4.00	D
14	S. Higuera Street & Suburban Road	EB	D	n/a			
		WB	D	1.17	A	1.57	B
		NB	D	2.48	B	2.23	B
		SB	D	2.11	B	2.74	C
15	S. Higuera Street & Tank Farm Road	EB	D	2.73	C	2.74	C
		WB	D	3.89	D	**5.19**	**E**
		NB	D	2.33	B	2.46	B
		SB	D	1.90	B	2.40	B
16	S. Higuera Street & Prado Road	EB	D	2.14	B	1.98	B
		WB	D	2.07	B	3.01	C
		NB	D	1.79	B	2.54	C
		SB	D	2.32	B	2.26	B
18	Madonna Road & Oceanaire Drive	EB	D	2.79	C	2.85	C
		WB	D	1.55	B	2.24	B
		NB	D	2.87	C	2.86	C
		SB	D	2.74	C	2.31	B
		SE	D	2.62	C	2.62	C
		NE	D	2.20	B	2.20	B
19	Madonna Road & Dalidio Drive	EB	D	2.20	B	2.25	B
		WB	D	1.74	B	2.15	B
		NB	D	2.02	B	2.63	C
		SB	D	1.59	B	1.94	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	D	2.01	B	2.07	B
		WB	D	1.74	B	2.06	B
		NB	D	3.86	D	3.78	D
		SB	D	2.94	C	2.99	C
21	Madonna Road & US 101 NB Ramps	EB	D	2.82	C	2.46	B
		WB	D	1.78	B	2.32	B
		NB	D	2.27	B	2.32	B
		SB	D	n/a			

Notes:
Bicycle LOS summary excludes unsignalized intersections and locations where no bicycle facilities are provided as HCM 6th Bike LOS Methodology do not model segments bounded by unsignalized intersections.

As shown in **Table 3.1-72**, under the Near Term Scenario 2 plus Project Conditions the project causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards for bicycle LOS at intersections:

- Los Osos Valley Road and Madonna Road in the westbound direction during the p.m. peak hour
- Los Osos Valley Road and Froom Ranch Way in the eastbound direction during p.m. peak hour

- South Higuera Street and Tank Farm Road in the westbound direction during p.m. peak hour

As part of other intersection capacity improvements planned at the Los Osos Valley Road/Froom Ranch Way intersection as part of the San Luis Ranch development, shared lane markings (sharrows) will be installed at the west leg of the intersection and intersection corners will be upgraded to feature bicycle protected intersection elements. Because these improvements are anticipated to be in place under baseline Near Term conditions, Project-related bicycle LOS impacts at this location are not considered to be contextually significant.

Table 3.1-73: Near Term Scenario 2 plus Project – 95th Percentile Queuing Analysis

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Scenario 2	Near Term Plus Project Scenario 2	Change in Queue
1	Los Osos Valley Road/Foothill Boulevard	WBR	180	AM	0	0	0
				PM	0	0	0
		NBL	120	AM	0	0	0
				PM	15	15	0
		NBR	370	AM	30	30	0
				PM	150	155	5
		SBL	490	AM	**#585**	**#590**	**5**
				PM	#280	#280	0
3	Los Osos Valley Road/Laguna Lane	WBL	Trap Lane	AM	90	90	0
				PM	40	45	5
		WBR	Trap Lane	AM	0	0	0
				PM	15	15	0
		NBR	80	AM	10	10	0
				PM	40	40	0
		SBL	120	AM	45	45	0
				PM	25	25	0
5	Los Osos Valley Road/Royal Way	EBR	70	AM	15	15	0
				PM	0	0	0
		WBR	70	AM	0	0	0
				PM	0	0	0
		NBL	110	AM	30	30	0
				PM	70	70	0
		SBL	160	AM	15	15	0
				PM	15	15	0
		SBR	50	AM	0	0	0
				PM	0	0	0
6	Los Osos Valley Road/Madonna Road	EBL	230	AM	135	135	0
				PM	80	80	0
		WBL	Trap Lane	AM	95	100	5
				PM	220	220	0
		WBR	170	AM	50	50	0

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Scenario 2	Near Term Plus Project Scenario 2	Change in Queue
				PM	85	85	0
		NBL	200	AM	90	90	0
				PM	#190	#195	5
		NBR	175	AM	50	60	10
				PM	80	90	10
		SBL	350	AM	280	280	0
				PM	#240	#240	0
7	Los Osos Valley Road/Froom Ranch Way	EBL	250	AM	#70	65	-5
				PM	**#260**	**#260**	0
		EBR	250	AM	0	0	0
				PM	65	60	-5
		WBL	295	AM	55	70	15
				PM	100	105	5
		WBR	50	AM	0	0	0
				PM	35	35	0
		NBL	300	AM	#125	135	10
				PM	**#310**	**#310**	0
		SBL	160	AM	35	40	5
				PM	#120	#120	0
8	Los Osos Valley Road/Auto Parkway (Project Driveway)	EBL	100	AM	-	45	-
				PM	-	75	-
		EBR	100	AM	-	20	-
				PM	-	40	-
		WBL	Trap Lane	AM	30	35	5
				PM	80	80	0
		WBR	175	AM	15	-	-
				PM	30	-	-
		NBL	200	AM	-	35	-
				PM	-	70	-
		SBL	100	AM	40	45	5
				PM	60	65	5
		SBR	100	AM	-	5	-
				PM	-	15	-
9	Los Osos Valley Road/Calle Joaquin	EBL	260	AM	30	30	0
				PM	45	45	0
		EBR	260	AM	15	15	0
				PM	25	25	0
		WBL	100	AM	55	55	0
				PM	**130**	**130**	**0**
		NBL	130	AM	m10	m10	0
				PM	m10	m10	0
		NBR	130	AM	m15	m15	0
				PM	m50	m50	0

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Scenario 2	Near Term Plus Project Scenario 2	Change in Queue
		SBL	120	AM	25	25	0
				PM	20	20	0
		SBR	120	AM	5	5	0
				PM	10	10	0
10	Los Osos Valley Road/US 101 SB Ramps	WBR	190	AM	125	320	195
				PM	**230**	**245**	**15**
		NBL	220	AM	m50	m50	0
				PM	m100	m#115	5
		SBR	120	AM	100	120	20
				PM	**#375**	**#420**	**45**
11	Los Osos Valley Road/US 101 NB Ramps	EBL	610	AM	#395	#400	5
				PM	#415	#425	10
		NBL	400	AM	90	90	0
				PM	175	175	0
		SBR	133	AM	m0	m0	0
				PM	0	0	0
12	Los Osos Valley Road/S. Higuera Street	EBL	Trap Lane	AM	#460	#480	20
				PM	#470	#505	35
		EBR	100	AM	45	45	0
				PM	50	50	0
		NBL	200	AM	55	55	0
				PM	30	30	0
		SBR	Trap Lane	AM	120	130	10
				PM	#585	#655	70
14	S. Higuera Street/Suburban Road	WBL	Trap Lane	AM	50	70	20
				PM	185	185	0
		SBL	170	AM	#100	80	-20
				PM	#140	#145	5
15	S. Higuera Street/Tank Farm Road	EBR	Trap Lane	AM	0	0	0
				PM	0	0	0
		WBL	Trap Lane	AM	230	250	20
				PM	540	550	10
		WBR	250	AM	55	55	0
				PM	**295**	**300**	**5**
		NBL	140	AM	55	55	0
				PM	60	60	0
		NBR	100	AM	**190**	**195**	**5**
				PM	**140**	**145**	**5**
		SBL	165	AM	**#570**	**#625**	**55**
				PM	**#860**	**#860**	**0**
16	S. Higuera Street/Prado Road	EBL	300	AM	75	75	0
				PM	#90	#90	0

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Scenario 2	Near Term Plus Project Scenario 2	Change in Queue
		EBR	300	AM	0	0	0
				PM	0	**0**	**0**
		WBL	105	AM	**#165**	**130**	**-25**
				PM	**#175**	**#180**	**5**
		WBR	410	AM	0	0	0
				PM	10	10	0
		NBL	300	AM	120	#155	25
				PM	#250	#255	5
		SBL	200	AM	**#355**	**#395**	**40**
				PM	#180	#180	0
18	Madonna Road/Oceanaire Drive	EBL	115	AM	40	45	5
				PM	#50	#50	0
		WBL	115	AM	**#125**	**#125**	0
				PM	**#280**	**#280**	0
		WBR	100	AM	**205**	**215**	**10**
				PM	**#505**	**#505**	0
		NBR	50	AM	0	0	0
				PM	0	0	0
19	Madonna Road/Dalidio Drive	EBL	145	AM	40	40	0
				PM	#60	#60	0
		EBR	100	AM	20	0	-20
				PM	85	85	0
		WBL	350	AM	#125	100	0
				PM	#240	#240	0
		NBL	150	AM	40	40	0
				PM	135	135	0
		NBR	150	AM	10	10	0
				PM	60	60	0
		SBR	50	AM	0	0	0
				PM	0	0	0
20	Madonna Road/US 101 SB Ramps/Madonna Inn	EBL	100	AM	#55	#55	0
				PM	#75	#75	0
		WBL	260	AM	195	195	0
				PM	m185	m185	0
		NBL	Trap Lane	AM	#210	#210	0
				PM	#515	#515	0
		NBR	275	AM	150	150	0
				PM	50	50	0
		SBL	Trap Lane	AM	20	20	0
				PM	30	30	0
		SBR	100	AM	0	0	0
				PM	0	0	0

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Near Term Scenario 2	Near Term Plus Project Scenario 2	Change in Queue
21	Madonna Road/US 101 NB Ramps	EBL	435	AM	m160	m125	-35
				PM	m#320	m#320	0
		NBL	185	AM	100	100	0
				PM	170	170	0

Notes:
Queue length rounded to nearest five feet. Queuing analysis is reported for signalized intersections only.
Bold: 95th percentile volume exceeds capacity.
m queue is metered by upstream intersection.
95th percentile queue exceeds capacity
Trap - denotes design where the thru-lane terminates in a turn-lane.
Westbound thru-lane (WBL); Westbound right-turn lane (WBR); Eastbound thru-lane (EBL); Northbound thru-lane (NBL); Northbound right-turn lane (NBR); Northbound trap (NBT); Southbound thru-lane (SBL); Southbound trap (SBT); Southbound right-turn lane (SBR)

As shown in **Table 3.1-73**, the addition of Project traffic would exacerbates 95th percentile turning movement queues that exceed lane capacity during a.m. or p.m. peak hours at the following intersections under Near Term plus Project Scenario 2 conditions:

- Los Osos Valley Road and Foothill Boulevard (SBL during a.m. peak hour)
- Los Osos Valley Road and US 101 SB Ramps (SBR and WBR during p.m. peak hour)
- S Higuera Street and Tank Farm Road (WBR during p.m. peak hour, NBR during both the a.m. and p.m. peak hours and SBL during both the a.m.)
- S Higuera Street and Prado Road (SBL during the a.m. peak hour)
- Madonna Road and Oceanaire Drive (WBR during the a.m. hour)

Table 3.1-74 through **Table 3.1-77** provides a summary of the multimodal a.m. and p.m. peak hour segment LOS under Near Term Scenario 2 plus Project conditions.

As shown in **Table 3.1-74**, under the Near Term Scenario 1 plus Project conditions the Project would not further degrade already exceeded LOS standards and decrease the average speed by 1 mph or more that exceed City's minimum automobile LOS threshold, thus resulting in a potentially significant impact.

As shown in **Table 3.1-75**, under Near Term Scenario 2 plus Project Conditions, the Project would further degrade already exceeded LOS standards that exceed the City's minimum pedestrian LOS threshold, thus resulting in a potentially significant impact at the following locations:

- Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive operates at LOS D during a.m. and p.m. peak hour in the southbound direction and operates at LOS D during p.m. peak hour in northbound direction.
- Los Osos Valley Road from Madonna Road to Froom Ranch Way operates at LOS F during a.m. peak hour in the northbound direction and operates at LOS D during p.m. peak hour in the northbound direction.

- Los Osos Valley Road from Froom Ranch Way to Calle Joaquin operates at LOS D during p.m. peak hour in the southbound direction.
- Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps operates at LOS D in southbound direction during a.m. and p.m. peak hours and operates at LOS D in northbound direction during p.m. peak hour.
- Los Osos Valley Road from US 101 NB Ramps to South Higuera Street operates at LOS D during a.m. and p.m. peak hour in the southbound direction and during a.m. peak hour in the northbound direction.
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS D during p.m. peak hours in the southbound direction.
- South Higuera Street from Tank Farm Road to Prado Road operates at LOS F during a.m. and p.m. peak hours in the southbound direction.
- Madonna Road from Los Osos Valley Road to Dalidio Drive operates at LOS F in eastbound direction during a.m. peak hour. In the westbound direction the segment is projected to operate at LOS F during a.m. peak hour and at LOS D during p.m. peak hour.

Due to the proximity of the Bob Jones Trail, which provides a low-stress route for pedestrians parallel to South Higuera between Los Osos Valley Road and Prado Road, the pedestrian impacts to segments of South Higuera Street are not considered to be contextually significant.

A Class I Path is planned to be installed along the west side of Madonna Road between Oceanaire and the US 101 SB Ramps intersection as a condition of the San Luis Ranch development and is expected to be in place for baseline Near Tern conditions. Considering the proximity of this facility and the availability of the Madonna frontage roads sidewalks as a low-stress alternative to Madonna Road, the pedestrian segment impacts along Madonna Road are not considered to be contextually significant.

As shown in **Table 3.1-76** and **Table 3.1-77**, under Near Term plus Project conditions Scenario 2 the Project would not cause minimum LOS standards to be exceeded that exceed City's minimum bicycle and transit LOS threshold, thus resulting in a potentially significant impact.

As shown in **Table 3.1-78** and **Table3.1-79**, under Near Term plus Project Scenario 2 conditions the Project would not increase the density by 5% or more at the facility that would exceed Caltrans minimum LOS thresholds.

Detailed roadway segment analysis worksheets are included in **Appendix C**, detailed freeway analysis worksheets for mainline, merge and diverge worksheets are attached in **Appendix D**, and detailed Leisch method analysis worksheets for weave segments are attached in **Appendix E**.

Table 3.1-74: Near Term Scenario 2 plus Project Segment LOS: Automobile Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	31.78	45.46	69.91%	B	33.32	45.46	73.3%	B
		NB	D	28.84	45.45	63.45%	C	27.59	45.45	60.7%	C
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	**12.76**	**42.64**	**29.93%**	**F**	**9.58**	**42.64**	**22.5%**	**F**
		NB	D	23.64	45.68	51.75%	C	22.07	45.68	48.3%	D
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	26.43	44.82	58.97%	C	18.82	44.83	42.0%	D
		NB	D	19.75	44.83	44.06%	D	**16.53**	**44.82**	**36.9%**	**E**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	36.45	44.80	81.36%	A	33.77	44.80	75.4%	B
		NB	D	32.44	45.22	71.74%	B	27.65	45.22	61.1%	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	19.66	45.33	43.37%	D	**17.32**	**45.33**	**38.2%**	**E**
		NB	D	19.54	40.66	48.06%	D	23.20	45.36	51.2%	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	21.91	40.64	53.91%	C	22.21	40.78	54.5%	C
		NB	D	27.66	41.19	67.15%	B	30.90	45.77	67.5%	B
7	S. Higuera Street from City Limit south to US 101/Clover Ridge Lane	SB	D	44.53	45.72	97.40%	A	45.03	45.72	98.5%	A
		NB	D	40.78	45.73	89.18%	A	41.30	45.73	90.3%	A
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	23.76	45.33	52.42%	C	20.44	45.34	45.1%	D
		NB	D	19.60	45.68	42.91%	D	**14.77**	**45.69**	**32.3%**	**E**
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	31.25	45.21	69.12%	B	24.37	45.23	53.9%	C
		NB	D	27.52	45.21	60.87%	C	25.73	45.24	56.9%	C
10	Tank Farm Road from S. Higuera Street to Broad Street	EB	D	34.08	43.15	78.98%	B	34.13	43.15	79.1%	B
		WB	D	33.85	42.40	79.83%	B	33.72	42.38	79.6%	B
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	21.69	38.92	55.73%	C	21.26	39.14	54.3%	C
		WB	D	21.21	38.84	54.61%	C	20.14	39.15	51.4%	C

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	38.10	41.09	92.73%	A	38.05	41.09	92.6%	A
		WB	D	30.98	41.08	75.41%	B	28.00	41.08	68.2%	B
13	Commercial Collector A from Los Osos Valley Road to Collector B	EB	D	32.93	39.37	83.64%	A	32.92	39.37	83.6%	A
		WB	D	30.25	39.37	76.84%	B	29.83	39.37	75.8%	B

Notes:
Bold indicates unacceptable operations.

Table 3.1-75: Near Term Scenario 2 plus Project Segment LOS: Pedestrian Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	C	**3.68**	**D**	**3.56**	**D**
		NB	C	3.31	C	**4.13**	**D**
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	C	**3.64**	**D**	3.26	C
		NB	C	2.78	C	3.26	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	C	3.40	C	**3.53**	**D**
		NB	C	**3.25**	**F**	**3.72**	**D**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	C	3.48	C	**3.70**	**D**
		NB	C	3.45	C	**3.54**	**D**
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	C	**3.91**	**D**	**3.66**	**D**
		NB	C	**3.52**	**D**	**3.89**	**D**
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	C	**4.63**	**E**	**4.00**	**D**
		NB	C	**3.50**	**D**	3.42	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	C	3.39	C	**3.93**	**D**
		NB	C	2.89	C	3.06	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	C	**3.47**	**F**	**4.34**	**F**
		NB	C	2.64	C	3.35	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	C	**4.61**	**F**	3.15	C
		WB	C	**3.80**	**F**	**4.16**	**D**
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	C	2.34	C	2.54	C
		WB	C	2.33	C	2.90	C
13	Commercial Collector A from Los Osos Valley Road to Collector B	EB	C	2.78	C	2.85	C
		WB	C	2.18	B	2.54	C

Notes:
Bold indicates unacceptable operations.

Table 3.1-76: Near Term Scenario 2 plus Project Segment LOS: Bicycle Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.04	B	1.99	A
		NB	D	1.61	A	1.89	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.39	C	2.29	C
		NB	D	1.54	A	1.82	A
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	2.68	C	2.67	C
		NB	D	1.50	A	1.85	A
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	2.52	C	2.67	C
		NB	D	1.89	A	2.07	B
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	2.88	C	2.87	C
		NB	D	2.61	C	2.98	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	2.45	C	2.47	C
		NB	D	1.82	A	2.01	B
7	S. Higuera Street from City Limit south to US 101/Clover Ridge Ln (No Ped or Transit LOS)	SB	D	1.56	A	0.72	A
		NB	D	1.60	A	1.49	A
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	2.60	C	2.96	C
		NB	D	2.94	C	3.00	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	2.47	C	2.73	C
		NB	D	2.09	B	2.42	C
10	Tank Farm Road from S. Higuera Street to Broad Street (No Ped or Transit LOS)	EB	D	2.75	C	2.72	C
		WB	D	2.90	C	2.99	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.17	C	3.01	C
		WB	D	2.23	B	2.53	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	1.49	A	0.65	A
		WB	D	0.83	A	0.43	A

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
13	Commercial Collector A from Los Osos Valley Road to Collector B	EB	D	0.48	A	2.50	C
		WB	D	0.93	A	2.57	C

Table 3.1-77: Near Term Scenario 2 plus Project Segment LOS: Transit Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.92	C	2.89	C
		NB	D	1.76	A	1.97	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.66	C	2.62	C
		NB	D	2.80	C	2.92	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	3.56	D	3.79	D
		NB	D	2.07	B	2.17	B
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	3.04	C	3.15	C
		NB	D	3.25	C	3.43	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	3.99	D	3.54	D
		NB	D	3.60	D	3.37	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	4.16	D	4.20	D
		NB	D	3.22	C	3.89	D
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	3.57	D	4.03	D
		NB	D	3.29	C	4.19	D
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.41	C	3.29	C
		WB	D	3.34	C	3.46	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	0.29	A	0.28	A
		WB	D	0.80	A	0.99	A

Notes:
Segments with no transit stops are excluded from the analysis.

Table 3.1-78: Near Term Scenario 2 plus Project Segment LOS: Freeway Mainline, Ramps & Weaving Sections Analysis

#	Interchange Location	Target LOS	Segment Type	Lanes	AM Peal Hour			PM Peal Hour		
					Volume	Density (pc/mi/ln)	LOS	Volume	Density (pc/mi/ln)	LOS
US 101 Northbound										
	US 101 NB, south of S Higuera Street	C	Freeway	2	2,542	21.6	C	2,589	22.0	C
	US 101 NB, south of Los Osos Valley Road	C	Freeway	2	2,829	24.2	C	2,174	18.5	C
	US 101 NB Los Osos Valley Road Off Ramp	C	Diverge	1	700	**29.3**	**D**	742	22.5	C
	US 101 NB Los Osos Valley Road On Ramp	C	Merge	1	201	29.3	C	519	25.6	C
	US 101 NB, north of Prado Road	C	Freeway	2	2,513	21.3	C	2,587	22.0	C
	US 101 NB Prado Road Off Ramp	C	Diverge	1	312	25.6	C	143	26.2	C
	US 101 NB Prado Road On Ramp	C	Merge	1	323	27.3	C	552	30.6	D
	US 101 NB, south of Madonna Road	C	Freeway	2	3,084	**26.7**	**D**	3,450	**31.0**	**D**
	US 101 NB, Madonna Road Off Ramp	C	Diverge	1	293	**31.4**	**D**	341	**35.2**	**E**
US 101 Southbound										
	US 101 SB, north of Madonna Road	C	Freeway	2	2,149	18.2	C	3,194	**27.9**	**D**
	US 101 SB Madonna Road On Ramp	C	Merge	1	259	23.1	C	386	**36.2**	**D**
	US 101 SB, north of Prado Road	C	Freeway	2	2,066	17.5	B	3,357	**29.8**	**D**
	US 101 SB, south of Los Osos Valley Road	C	Freeway	2	1,329	11.3	B	2,409	20.4	C
	US 101 SB Los Osos Valley Road Off Ramp	C	Diverge	1	690	13.8	B	645	24.9	C
	US 101 SB Los Osos Valley Road On Ramp	C	Merge	1	419	16.4	B	770	**31.1**	**D**
	US 101 SB, north of S Higuera Street	C	Freeway	2	2,384	20.2	C	3,873	**37.3**	**E**

Table 3.1-79: Near Term Scenario 2 plus Project Segment Weaving Sections Analysis: Leisch Method

Interchange Location	Target LOS	Segment Type	No. of Lanes	Length	AM Peak		PM Peak	
					Total Volume	LOS	Total Volume	LOS
US 101 Northbound								
Between Los Osos Valley Road and Prado Road	C	Weave	2	4,380	3,356	A	3,093	A
Between Prado Road and Madonna Road	C	Weave	2	2,280	3,703	A	4,255	A
US 101 Southbound								
Between Madonna Road and Los Osos Valley Road	C	Weave	2	5,490	3,098	A	4,281	A

3.3.8 Near-Term plus Project Scenario 2 Impacts and Mitigation measures

This section presents the project-related impacts and mitigation measures at the study intersections and segments under Near-term plus Project Scenario 2 Conditions.

Table 3.1-80: Near Term Scenario 2 Impacts & Mitigations

Location	Trigger	Mode	Impact	Mitigation Measure
Near Term Scenario 2 Plus Project Impacts and Mitigation Measures				
Intersection #1: Los Osos Valley Road & Foothill Boulevard	Phase 2	Auto (Queue)	Addition of project traffic will exacerbate the southbound left-turn queue in the a.m. peak hour that would exceed capacity.	Optimize signal timing to increase the allocation of green-time to the southbound left-turn (with no increase in total cycle length). *Requires County approval and coordination*
Intersection #6: Los Osos Valley Road & Madonna Road	Phase 2 Phase 2	Pedestrian Bicycle	Addition of project traffic will exacerbate unacceptable pedestrian LOS crossing Los Osos Valley Road during the p.m. peak hour Addition of project traffic will exacerbate unacceptable pedestrian LOS crossing Los Osos Valley Road during the p.m. peak hour	Implement Pedestrian Lead Intervals (LPI) for each pedestrian crossing phase at this intersection. Construct Prado Interchange and US 101 NB Ramps. Project is responsible for improvements prior to Phase 2, or fair-share contribution if improvements are constructed sooner by others. ***This impact under Near-term Scenario 2 plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***
Intersection #10: Los Osos Valley Road & US 101 SB Ramps	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the existing southbound right queue in the p.m. peak hour.	Construct Prado Interchange and US 101 NB Ramps. Mitigate to maximum extent feasible by extending the westbound left turn pocket to 320 feet, extending the southbound right turn pocket to 140 feet, and optimizing traffic signal coordination between LOVR/Calle Joaquin and LOVR/US 101 SB Ramps. Project is responsible for implementation prior to Phase 4 or fair-share contribution if constructed sooner by others. *Requires Caltrans approval and coordination.*[1] ***This impact under Near-term Scenario 2 plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***

Location	Trigger	Mode	Impact	Mitigation Measure
Intersection #15: S Higuera Street & Tank Farm Road	Phase 2	Pedestrian	Addition of project traffic will exacerbate unacceptable pedestrian LOS during the p.m. peak hour that reflects the crossing across S. Higuera Street.	Implement Pedestrian Lead Intervals (LPI) for each pedestrian crossing phase at this intersection. Construct Prado Road Interchange and NB 101 Ramps. Mitigate to the maximum extent feasible with installation of Existing Plus Project Mitigation and extension of northbound right-turn pocket storage to 230 feet. Project is responsible for implementation of pedestrian and bicycle improvements prior to Phase 2. Project is responsible for Prado Road Interchange and turn lane improvements prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others. ***This impact under Near-term Scenario 2 plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***
		Bicycle	Project traffic would exacerbate existing unacceptable intersection LOS for bicycles approaching the intersection westbound on Tank Farm Road.	
	Phase 2			
	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the northbound right turn queue during both a.m. and p.m. peak hour and southbound left queue in the a.m. peak hour.	
Intersection #16: S Higuera Street & Prado Road	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the southbound left queue in the a.m. peak hour	Restripe intersection to accommodate a second southbound left-turn lane and second eastbound through lane. Requires striping modifications and potential street parking removal on east leg of intersection. Project is responsible for implementation prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others.
Intersection #18: Madonna Road & Oceanaire Drive	Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the westbound right queue a.m. peak hour	Construct Prado Road Interchange and NB 101 Ramps. Project is responsible for implementation of improvements prior to Phase 4, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others. ***This impact under Near-term plus Project Scenario 2 conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***

Location	Trigger	Mode	Impact	Mitigation Measure
Intersection # 20: Madonna Road & US 101 SB Ramps	Phase 2	Auto	With addition of traffic from the proposed project, Automobile LOS would exceed Caltrans standards in the p.m. peak hour	Construct Prado Road Interchange & NB 101 Ramps. Mitigate to the maximum extent feasible with optimization of signal timings and coordination between US 101 NB and SB ramp intersections. Project is responsible for implementation of improvements prior to Phase 2, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others. *Requires Caltrans coordination and approval.* ***This impact under Near-term Scenario 2 plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***
Intersection # 21: Madonna Road & US 101 NB Ramps	Phase 2	Auto	With addition of traffic from the proposed project, Automobile LOS would exceed Caltrans standards in the p.m. peak hour	Construct Prado Road Interchange & NB 101 Ramps. Mitigate to the maximum extent feasible with optimization of signal timings and coordination between US 101 NB and SB ramp intersections. Project is responsible for implementation of improvements prior to Phase 2, or fair-share contribution through payment of City Traffic Impact Fees if improvements are constructed sooner by others. *Requires Caltrans coordination and approval.* ***This impact under Near-term Scenario 2 plus Project conditions would be considered significant and unavoidable if Prado Interchange is not in place by Project occupancy.***
Roadway Segment #1: Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive.	Phase 2	Pedestrian	Roadway segments on Los Osos Valley Road operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation

Location	Trigger	Mode	Impact	Mitigation Measure
Roadway Segment #2: Los Osos Valley Road from Oceanaire Drive to Madonna Road	Phase 2	Pedestrian	Roadway segment operates at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation
Roadway Segments #3, #4, #5 and #6: Los Osos Valley Road from Madonna Road to S. Higuera Street	Phase 2	Pedestrian	Roadway segments operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation
Roadway Segment #5: Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	Phase 4	Auto	With addition of traffic from the proposed project, Automobile LOS would exceed City's standard in southbound direction during p.m. peak hour	Optimize signal timings at three adjacent intersections that operate on coordinated cycles: Los Osos Valley Road & US 101 NB Ramps; Los Osos Valley Road & Calle Joaquin; and Los Osos Valley Road & US 101 SB Ramps. Project is responsible for implementation prior to Phase 4, or fair-share contribution if improvements are constructed sooner by others. *Requires Caltrans Coordination.*

Near Term (2025) Scenario 2 Trip Distribution

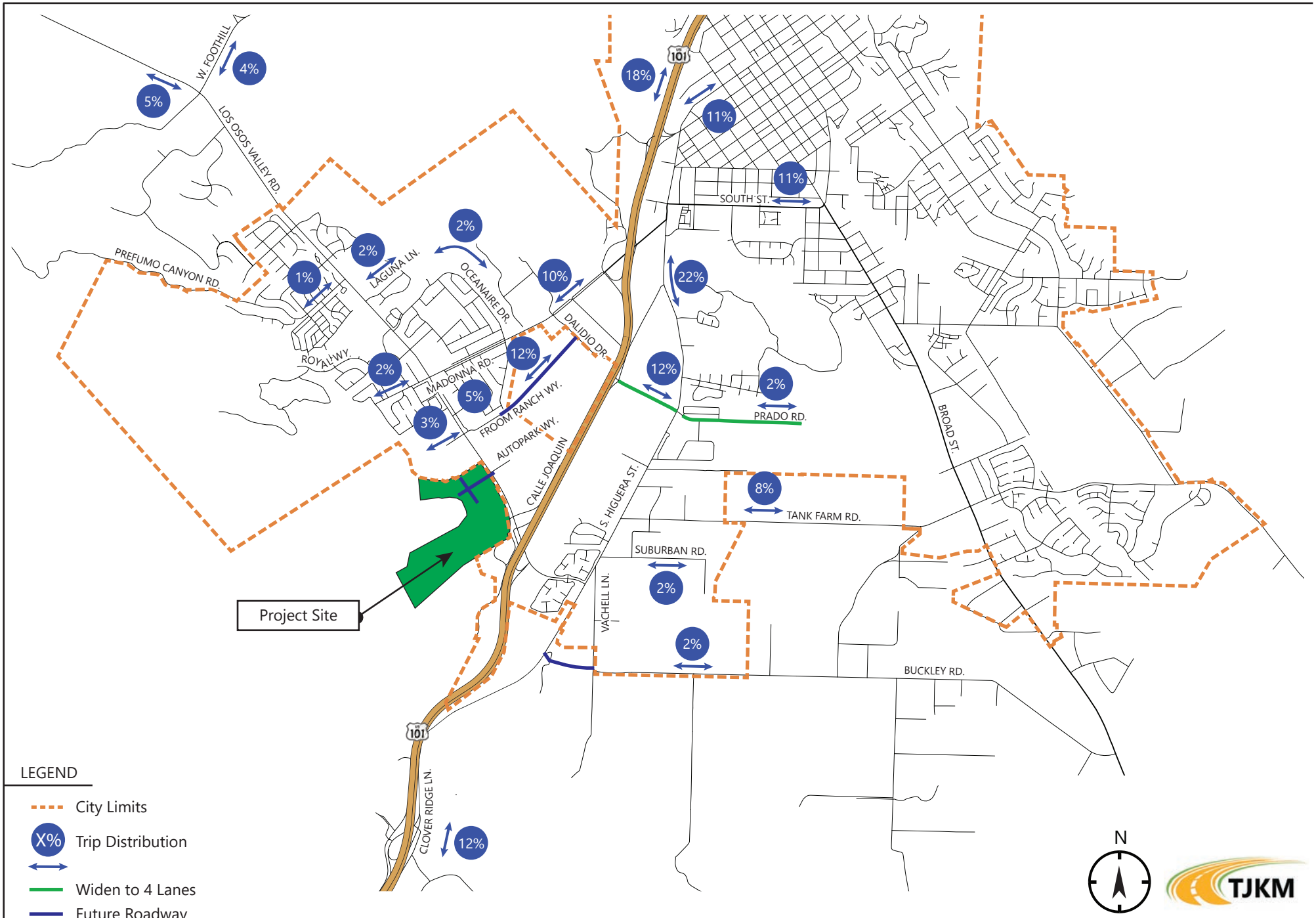


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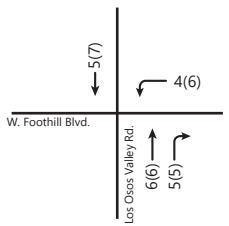
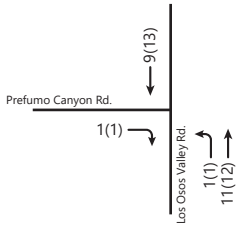
Figure 3.1-20

Near Term (2025) Scenario 2 Trip Assignment

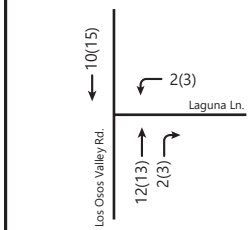
Intersection #1
W. Foothill Blvd. / Los Osos Valley Rd.



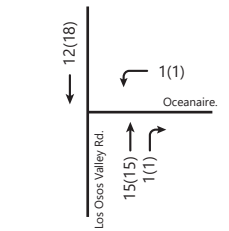
Intersection #2
Los Osos Valley Rd./Prefumo Canyon Rd.



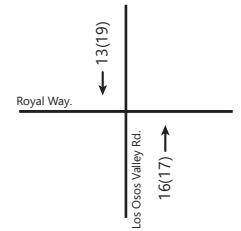
Intersection #3
Los Osos Valley Rd. / Laguna Ln.



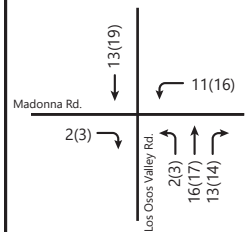
Intersection #4
Los Osos Valley Rd./Oceanaire Dr.



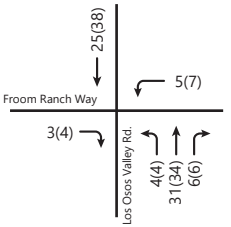
Intersection #5
Los Osos Valley Rd./Royal Way



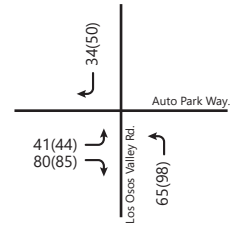
Intersection #6
Los Osos Valley Rd./Madonna Rd.



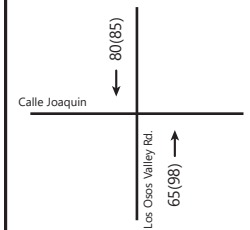
Intersection #7
Los Osos Valley Rd./Froom Ranch Way



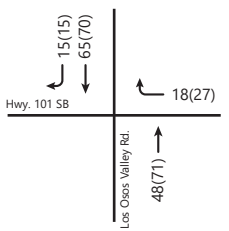
Intersection #8
Los Osos Valley Rd./Auto Park Way



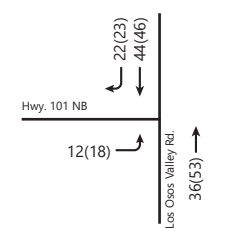
Intersection #9
Los Osos Valley Rd./Calle Joaquin



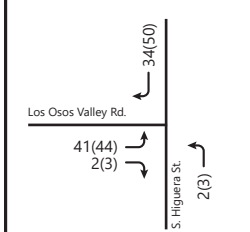
Intersection #10
Los Osos Valley Rd. / Hwy. 101 SB

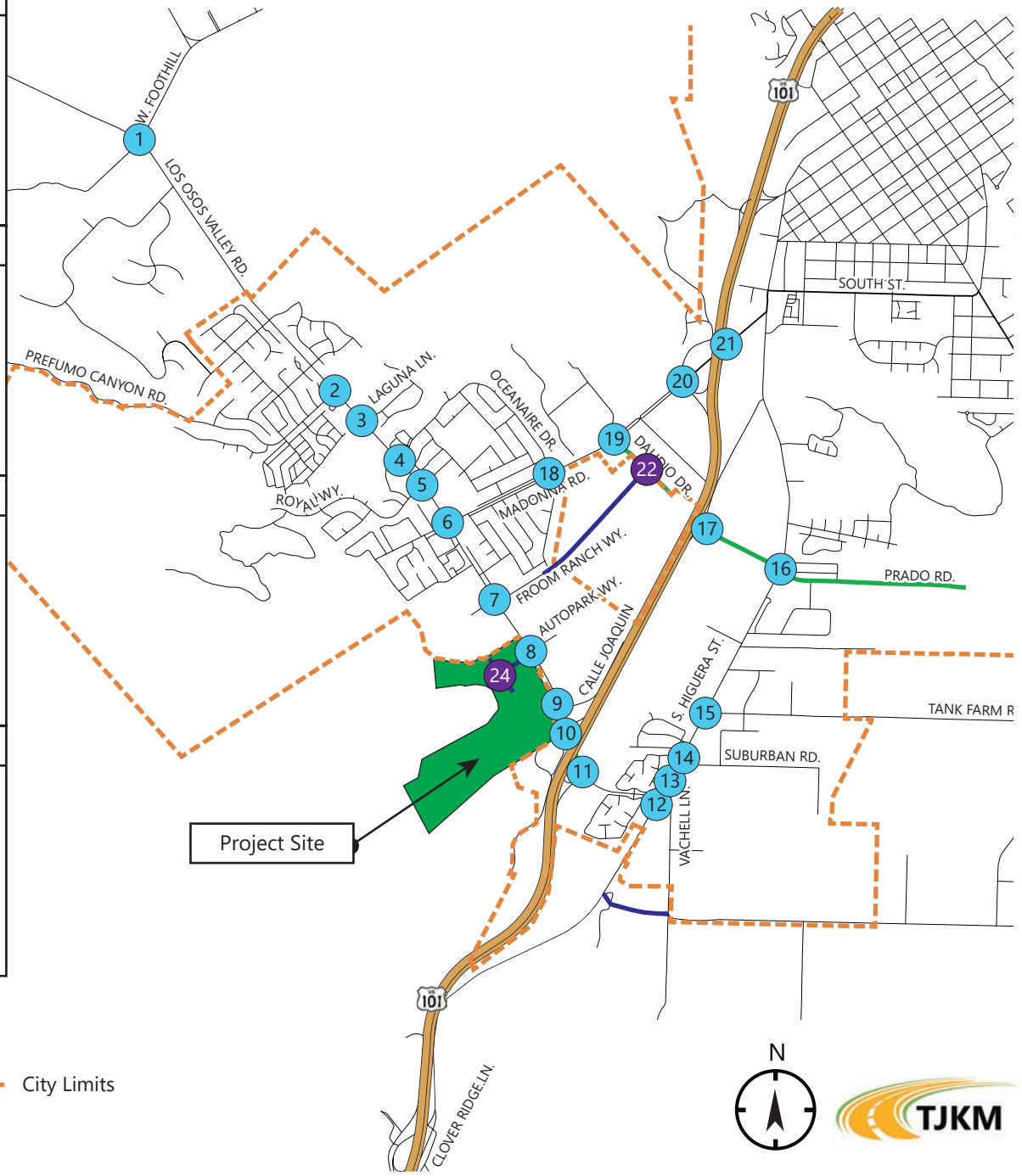


Intersection #11
Los Osos Valley Rd. / Hwy. 101 NB



Intersection #12
S. Higuera St. / Los Osos Valley Rd.





LEGEND

- (X) Study Intersection ID
- XX AM Peak Hour Trips
- (XX) PM Peak Hour Trips
- Widen to 4 Lanes
- Future Roadway
- (X) Future Intersection
- City Limits

Figure 3.1-21

Near Term (2025) Scenario 2 Trip Assignment

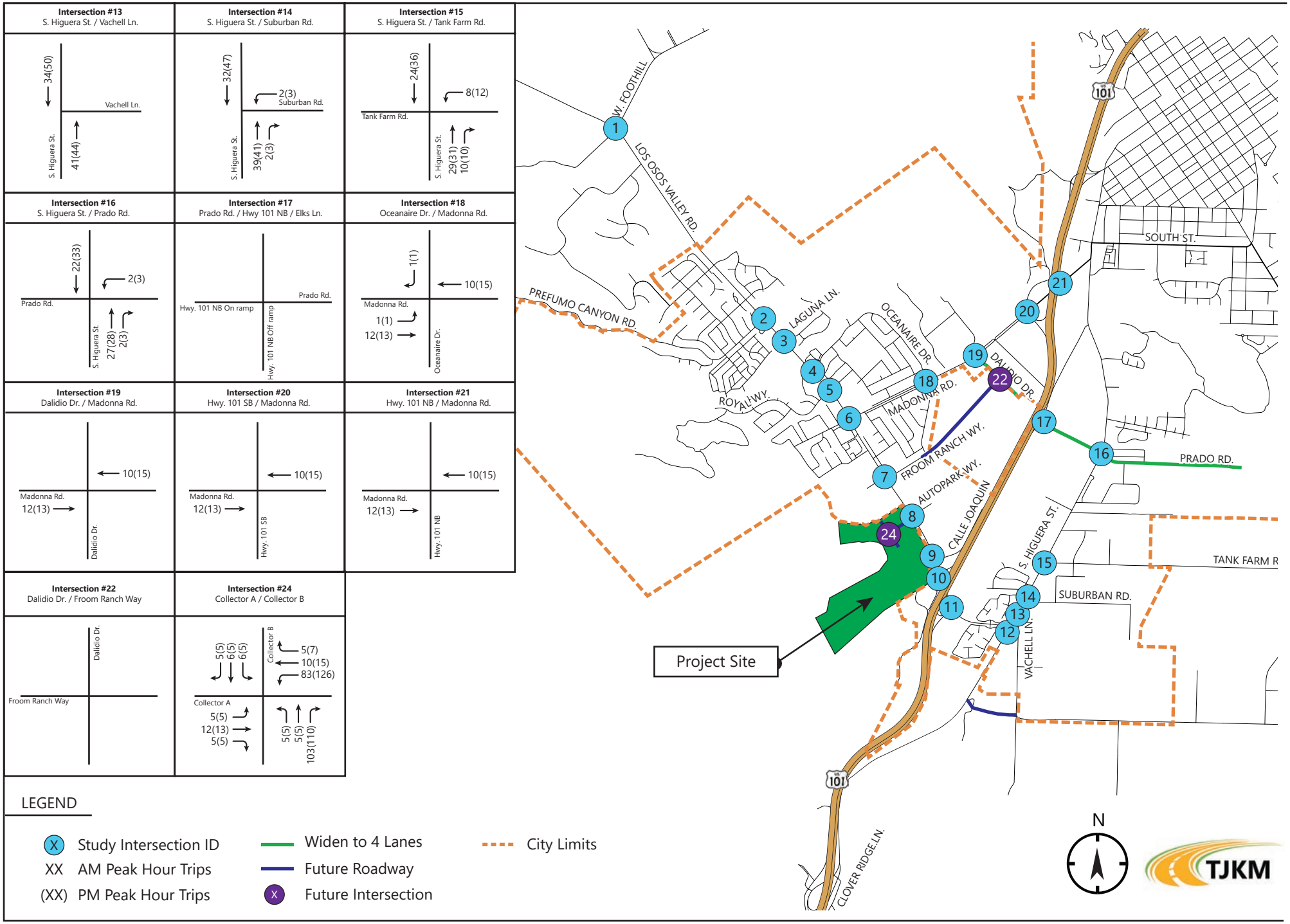


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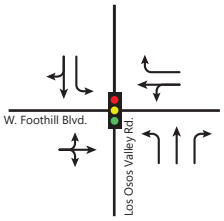
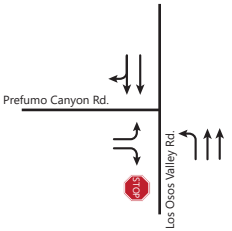
Figure 3.1-21

Near Term plus Project Scenario 2 Lane Geometry and Traffic Controls

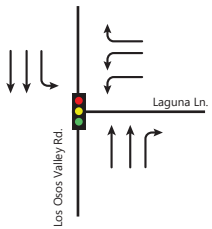
Intersection #1
W. Foothill Blvd. / Los Osos Valley Rd.



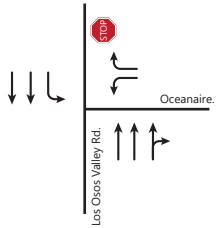
Intersection #2
Los Osos Valley Rd./Prefumo Canyon Rd.



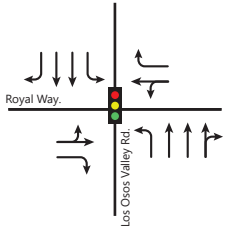
Intersection #3
Los Osos Valley Rd. / Laguna Ln.



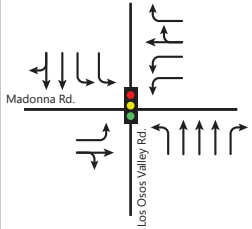
Intersection #4
Los Osos Valley Rd./Oceanaire Dr.



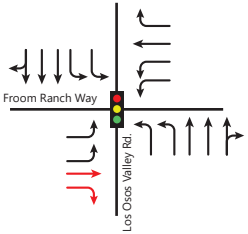
Intersection #5
Los Osos Valley Rd./Royal Way



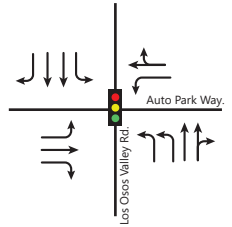
Intersection #6
Los Osos Valley Rd./Madonna Rd.



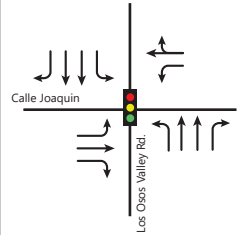
Intersection #7
Los Osos Valley Rd./Froom Ranch Way



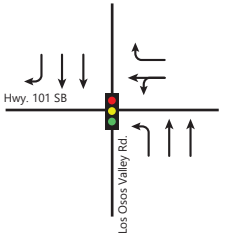
Intersection #8
Los Osos Valley Rd./Auto Park Way



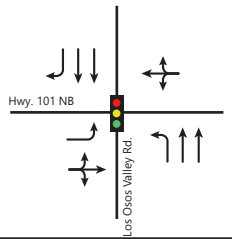
Intersection #9
Los Osos Valley Rd./Calle Joaquin



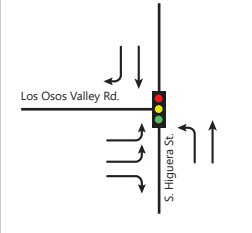
Intersection #10
Los Osos Valley Rd. / Hwy. 101 SB

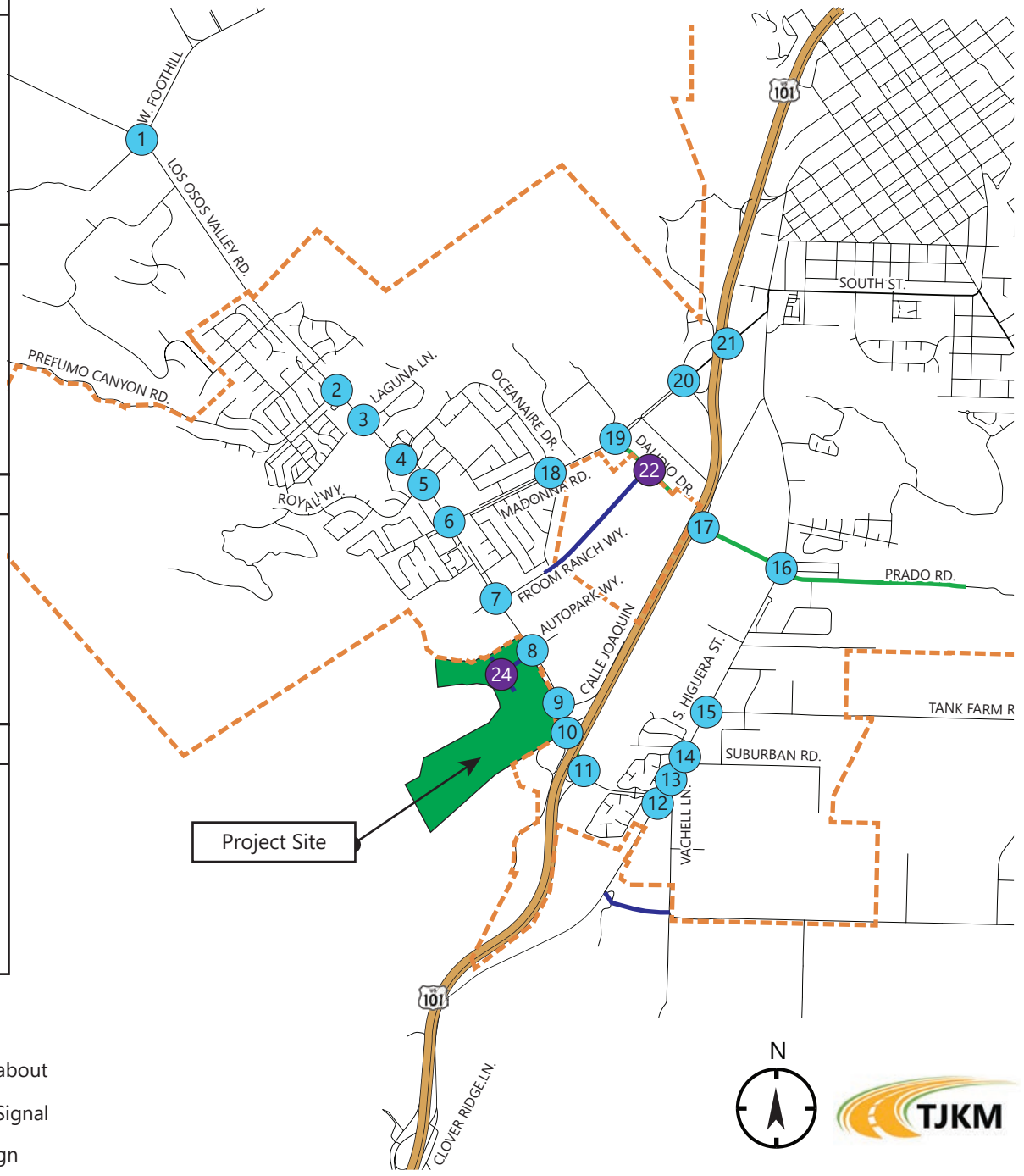


Intersection #11
Los Osos Valley Rd. / Hwy. 101 NB



Intersection #12
S. Higuera St. / Los Osos Valley Rd.





LEGEND

- X — Study Intersection ID
- X — Future Intersection
- → Proposed Geometry
- Widen to 4 Lanes
- Future Roadway
- City Limits
- Roundabout
- Traffic Signal
- STOP Stop Sign

N

TJKM

Figure 3.1-22

Near Term plus Project Scenario 2 Lane Geometry and Traffic Controls

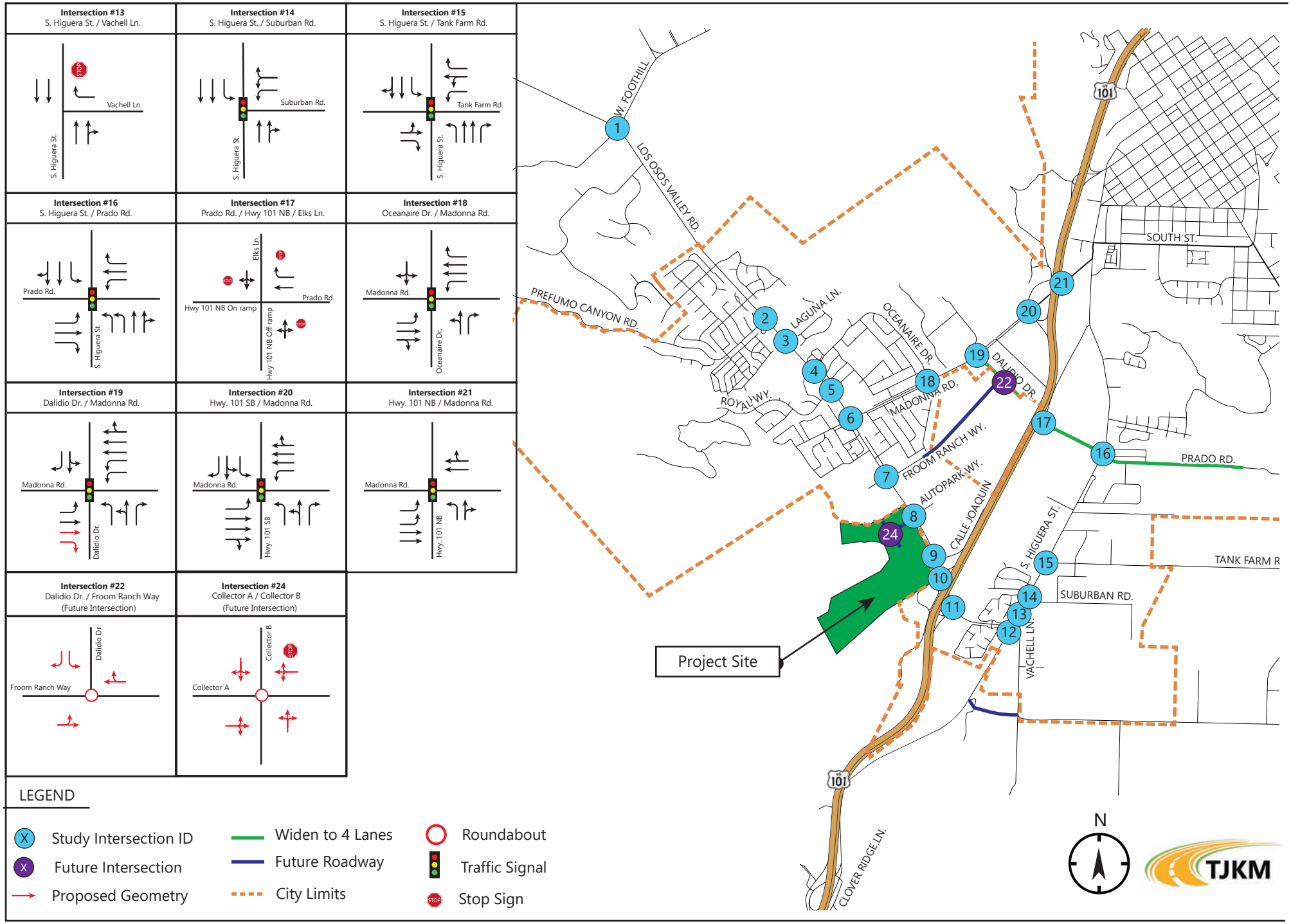
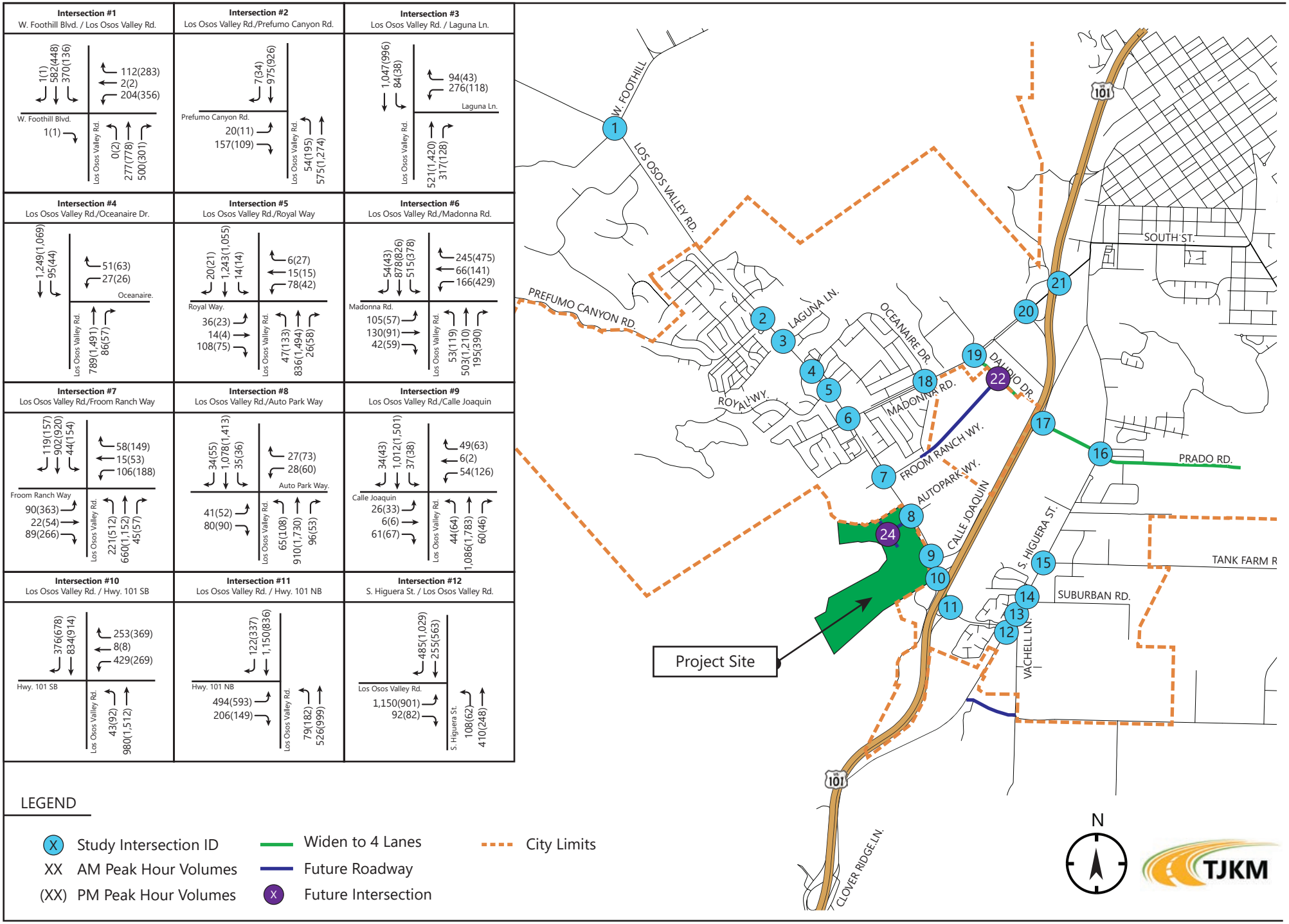


Figure 3.1-22

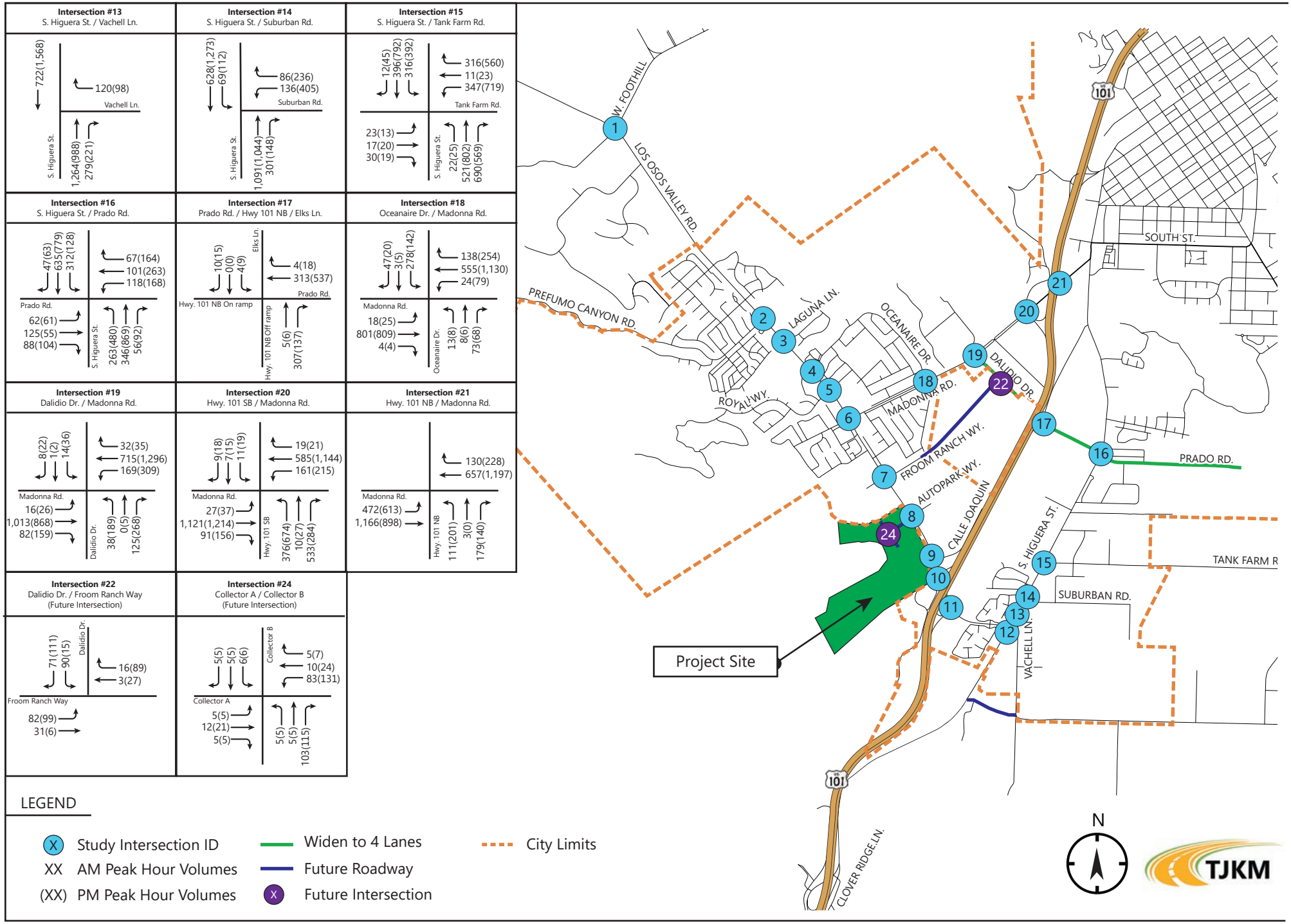
Near Term (2025) Plus Project Scenario 2 Turning Movement Volumes



292-003

Figure 3.1-23

Near Term (2025) Plus Project Scenario 2 Turning Movement Volumes



292-003

Figure 3.1-23

3.3.9 Cumulative Impacts

Cumulative conditions represent conditions with planned and approved developments and roadway improvement projects in place. Based on the list of approved and reasonably foreseeable projects, future traffic demands were estimated.

3.3.9.1 Cumulative Growth Assumptions

Cumulative analysis quantifies conditions representing buildout of the City's adopted General Plan land uses and transportation infrastructure improvements. The forecast horizon is Year 2035 and includes regional growth representing buildout of surrounding incorporated jurisdictions and unincorporated communities in the County. As with Near Term conditions, vehicular, pedestrian, bicycle, and transit trip forecasts were developed utilizing the City's travel demand model and were also developed to be largely consistent with growth increments of the past San Luis Ranch MMTIS Cumulative plus Project scenario.

Cumulative Land Development Projects

Besides the approved/pending projects identified for inclusion in the Near Term scenario, the Cumulative scenario also considers a reasonable projection on the remaining vacant and undeveloped land in the City, consistent with the City's General Plan Land Use Element. The forecasts for this scenario were developed using the City's travel demand model, and were developed to be consistent with recently approved impact studies and EIRs, including most notably the San Luis Ranch MMTIS. Regional growth was based on the model growth projections, and Caltrans historical and current counts on mainline facilities will be reviewed to ensure the model forecasts are adequately consistent with past historical growth rates.

Cumulative Transportation Projects

A number of transportation infrastructure improvement projects have been identified by the City for inclusion in the Cumulative analysis scenario. These projects are all consistent with the City's General Plan Circulation Element, and are included in the City's impact fee program and capital improvement program. However, it is not anticipated that every project identified in the City's Circulation Element will be funded or constructed by the Year 2035 forecast horizon. Therefore, the Cumulative transportation projects list includes only those that are anticipated to be funded and constructed within that time frame. Cumulative transportation projects included in the analysis are listed below. Notable improvements include:

- Prado Interchange Phase 2 (SB Ramps and SB Collector-Distributor System)
- Prado Interchange & Dalidio/Prado Widening
- Prado Road Extension to Broad
- Intersection improvements at Prado Road and S Higuera Street
- Intersection improvements at S Higuera Street/Tank Farm Road

Cumulative Traffic Forecasts

Cumulative 2035 traffic forecasts were developed using projections from the City's travel demand forecasting model, with refinements to provide consistency with recent traffic forecasts prepared for the San Luis Ranch and Avila Ranch development project EIRs. The following methodology was used to estimate traffic demands for Cumulative 2035 analysis:

- Incremental volume delta from the San Luis Ranch Project volumes between Existing (2014) and Cumulative 2035 plus Project Scenario were calculated.
- Existing volumes in the San Luis Ranch study were from 2014, so volumes were adjusted to reflect 19 years of growth (2016-2035) instead of 21 (2014-2035).
- Adjusted incremental volume delta were added to the Froom Ranch TIS existing 2016 volumes.
- For study locations not included in the San Luis Ranch study, an average annual growth percentage was developed from the model or from the San Luis Ranch 2025-2035 volumes and were applied appropriately.
- For the intersection of S Higuera Street and Vachell Lane, Avila Ranch Study was used to develop Cumulative (2035) volumes at the intersection applying the same methodology.
- For the Cumulative 2035 Baseline volumes, existing trips from the Froom Ranch Specific Plan Land Use as coded in the current City Model were removed to avoid "double-counting" trips related to the Project.

3.3.9.2 Cumulative (2035) Conditions Baseline LOS Analysis

Table 3.1-81 through **Table 3.1-84** provides a summary of multimodal a.m. and p.m. peak hour intersection LOS and queuing under Cumulative (2035) Baseline conditions without the proposed Project. **Figure 3.1-22** shows the Cumulative (2035) Baseline Conditions Lane Geometries and Traffic Controls at the study intersections. **Figure 3.1-23** shows the Cumulative Conditions peak hour traffic volumes at the study intersections. **Figure 3.1-24** shows Project trip distribution pattern for Cumulative plus Project conditions. **Figure 3.1-25** shows Project trip assignment for Cumulative plus Project conditions. **Figure 3.1-26** shows the Cumulative plus Project conditions peak hour traffic volumes at the study intersections. Detailed Synchro LOS worksheets are included in **Appendix A.**

Table 3.1-81: Cumulative Intersection LOS – Automobile Analysis

ID	Study Intersections	Control	LOS Target	Peak Hour	Cumulative Conditions		
					Delay[1]	LOS[2]	V/C[3]
1	Los Osos Valley Road & Foothill Boulevard	Signal	D	AM	22.8	C	
				PM	**58.7**	**E**	**1.05**
2	Los Osos Valley Road & Prefumo Canyon Road	TWSC	D	AM	22.2	C	
				PM	**51.1**	**F**	**0.66**
3	Los Osos Valley Road & Laguna Lane	Signal	D	AM	9.8	A	
				PM	8.3	A	
4	Los Osos Valley Road & Oceanaire Drive	TWSC	D	AM	**45.7**	**E**	**0.44**
				PM	**126.0**	**F**	**1.04**
5	Los Osos Valley Road & Royal Way	Signal	D	AM	53.3	D	
				PM	35.1	D	
6	Los Osos Valley Road & Madonna Road	Signal	D	AM	35.7	D	
				PM	48.1	D	
7	Los Osos Valley Road & Froom Ranch Way	Signal	D	AM	21.5	C	
				PM	35.5	D	
8	Los Osos Valley Road & Auto Park Way	Signal	D	AM	4.9	A	
				PM	8.1	A	
9	Los Osos Valley Road & Calle Joaquin	Signal	D	AM	9.6	A	
				PM	16.0	B	
10	Los Osos Valley Road & US 101 SB Ramps	Signal	C	AM	21.5	C	
				PM	22.6	C	
11	Los Osos Valley Road & US 101 NB Ramps	Signal	C	AM	26.4	C	
				PM	25.6	C	
12	Los Osos Valley Road & S. Higuera Street	Signal	D	AM	17.3	B	
				PM	27.4	C	
13	S. Higuera Street & Vachelle Lane	TWSC	D	AM	30.0	D	
				PM	14.8	B	
14	S. Higuera Street & Suburban Road[5]	Signal	D	AM	10.5	B	
				PM	13.7	B	
15	S. Higuera Street & Tank Farm Road[4]	Signal	D	AM	34.8	C	
				PM	37.0	D	
16	S. Higuera Street & Prado Road	Signal	D	AM	45.1	D	
				PM	37.9	D	
17	Prado Road/US 101 NB Ramps	Roundabout	C	AM	21.1	C	
				PM	21.9	C	
18	Madonna Road & Oceanaire Drive[4]	Signal	D	AM	39.0	D	
				PM	30.1	C	
19	Madonna Road & Dalidio Drive	Signal	D	AM	34.9	C	
				PM	48.9	D	
20	Madonna Road & US 101 SB Ramps/Madonna Inn	Signal	C	AM	33.1	C	
				PM	23.7	C	
21	Madonna Road & US 101 NB Ramps	Signal	C	AM	15.3	B	
				PM	34.3	C	
22	Dalidio Drive & Froom	Roundabout	D	AM	7.9	A	

ID	Study Intersections	Control	LOS Target	Peak Hour	Cumulative Conditions		
					Delay[1]	LOS[2]	V/C[3]
				PM	15.4	C	
23	Prado Road & US 101 SB Ramps	Roundabout	C	AM	11.2	B	
				PM	7.9	A	

Notes:
[1]Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.
[2]LOS – Levels of Service
[3] Volume-to-capacity ratio reported for worst movement only.
[4]HCM 6th Methodology does not support intersections with more than four approaches. Hence HCM 2000 Methodology used for intersections 14, and 18
Bold indicates unacceptable operations.

As shown in **Table 3.1-81**, under the Cumulative (2035) conditions evaluated in the traffic study, following seven intersections are projected to exceed the City's minimum automobile LOS threshold:

- Los Osos Valley Road and Foothill Boulevard, during p.m. peak hour
- Los Osos Valley Road and Prefumo Canyon Road, during p.m. peak hour
- Los Osos Valley Road and Oceanaire Drive, during a.m. and p.m. peak hours

Table 3.1-82: Cumulative Intersection LOS – Pedestrian Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	C	1.74	B	1.75	B
		WB	C	2.47	B	2.43	B
		NB	C	2.73	C	2.84	C
		SB	C	2.81	C	3.01	C
2	Los Osos Valley Road & Prefumo Canyon Road[1]	EB	C	n/a			
		WB	C				
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	**>5.0**	**F**	**>5.0**	**F**
3	Los Osos Valley Road & Laguna Lane	EB	C	n/a			
		WB	C	2.30	B	2.22	B
		NB	C	2.79	C	2.92	C
		SB	C	2.88	C	3.17	C
4	Los Osos Valley Road & Oceanaire Drive[1]	EB	C	n/a			
		WB	C				
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	**>5.0**	**F**	**>5.0**	**F**
5	Los Osos Valley Road & Royal Way	EB	C	2.01	B	2.02	B
		WB	C	1.98	B	1.99	B
		NB	C	3.11	C	3.29	C
		SB	C	3.11	C	3.25	C

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
6	Los Osos Valley Road & Madonna Road	EB	C	2.10	B	2.12	B
		WB	C	2.99	C	3.04	C
		NB	C	3.02	C	3.21	C
		SB	C	3.43	C	**3.53**	**D**
7	Los Osos Valley Road & Froom Ranch Way	EB	C	2.64	C	2.76	C
		WB	C	2.57	C	2.65	C
		NB	C	3.13	C	3.31	C
		SB	C	3.11	C	3.27	C
8	Los Osos Valley Road & Auto Park Way	EB	C	n/a			
		WB	C	2.02	B	2.02	B
		NB	C	2.99	C	3.43	C
		SB	C	2.98	C	3.34	C
9	Los Osos Valley Road & Calle Joaquin	EB	C	2.47	B	2.49	B
		WB	C	2.13	B	2.16	B
		NB	C	3.16	C	**3.50**	**D**
		SB	C	2.99	C	3.32	C
10	Los Osos Valley Road & US 101 SB Ramps	EB	C	2.02	B	2.26	B
		WB	C	2.23	B	2.12	B
		NB	C	2.95	C	3.13	C
		SB	C	3.02	C	3.38	C
11	Los Osos Valley Road & US 101 NB Ramps	EB	C	2.50	C	2.57	C
		WB	C	1.42	A	1.42	A
		NB	C	2.87	C	2.94	C
		SB	C	2.98	C	3.13	C
12	Los Osos Valley Road & S. Higuera Street	EB	C	2.83	C	2.94	C
		WB	C	n/a			
		NB	C	2.46	B	2.68	C
		SB	C	2.85	C	2.88	C
13	S. Higuera Street & Vachelle Lane[1]	EB	C	n/a			
		WB	C				
		NB	C				
		SB	C				
14	S. Higuera Street & Suburban Road	EB	C	n/a			
		WB	C	2.23	B	2.32	B
		NB	C	3.10	C	3.13	C
		SB	C	2.85	C	2.91	C
15	S. Higuera Street & Tank Farm Road	EB	C	2.02	B	2.02	B
		WB	C	3.00	C	3.04	C
		NB	C	3.41	C	**3.52**	**D**
		SB	C	2.86	C	3.06	C
16	S. Higuera Street & Prado Road	EB	C	3.22	C	3.16	C
		WB	C	3.14	C	3.07	C
		NB	C	3.00	C	3.18	C
		SB	C	3.00	C	3.15	C
18	Madonna Road & Oceanaire Drive	EB	C	2.85	C	2.88	C

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
		WB	C	3.32	C	3.32	C
		NB	C	2.01	B	2.01	B
		SB	C	2.00	B	1.87	B
		SE	C	1.82	B	1.87	B
		NE	C	1.78	B	1.76	B
19	Madonna Road & Dalidio Drive	EB	C	3.07	C	3.20	C
		WB	C	3.05	C	3.14	C
		NB	C	2.70	C	2.86	C
		SB	C	1.98	B	2.00	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	C	2.93	C	3.03	C
		WB	C	2.95	C	2.98	C
		NB	C	2.75	C	2.79	C
		SB	C	2.17	B	2.19	B
21	Madonna Road & US 101 NB Ramps	EB	C	2.86	C	2.91	C
		WB	C	2.70	C	2.74	C
		NB	C	1.96	B	1.96	B
		SB	C	2.02	B	2.16	B

Notes:
[1]For unsignalized AWSC intersections, pedestrian delay is reported as pedestrian LOS methodology is not supported for crosswalks that intersect stop-sign controlled approaches. For unsignalized TWSC intersections, pedestrian LOS methodology is limited to the uncontrolled crossings.

As shown in **Table 3.1-82**, under the Cumulative (2035) conditions evaluated in the traffic study, following intersection are projected to exceed the City's minimum pedestrian LOS threshold:

- Los Osos Valley Road and Prefumo Canyon in the northbound and southbound approaches during both peak hours
- Los Osos Valley Road and Oceanaire in the northbound approach during both peak hours
- Los Osos Valley Road and Madonna Road in the southbound direction during p.m. peak hour
- Los Osos Valley Road and Calle Joaquin in the northbound direction during p.m. peak hour
- South Higuera Street and Tank Farm Road in the northbound direction during p.m. peak hour

Table 3.1-83: Cumulative Intersection Level of Service – Bicycle Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	D	2.71	C	2.71	C
		WB	D	3.31	C	3.95	D
		NB	D	2.84	C	3.38	C
		SB	D	2.77	C	2.04	B
3	Los Osos Valley Road & Laguna Lane	EB	D	n/a			
		WB	D	2.96	C	2.78	C
		NB	D	1.84	B	2.46	B
		SB	D	1.62	B	1.61	B
5	Los Osos Valley Road & Royal Way	EB	D	3.15	C	2.97	C
		WB	D	3.21	C	2.95	C
		NB	D	2.68	C	3.19	C
		SB	D	2.29	B	2.22	B
6	Los Osos Valley Road & Madonna Road	EB	D	3.33	C	3.17	C
		WB	D	3.76	D	4.42	D
		NB	D	1.68	B	2.16	B
		SB	D	3.08	C	2.73	C
7	Los Osos Valley Road & Froom Ranch Way	EB	D	3.52	D	4.41	D
		WB	D	2.29	B	2.88	C
		NB	D	1.82	B	2.38	B
		SB	D	1.88	B	1.92	B
8	Los Osos Valley Road & Auto Park Way	EB	D	n/a			
		WB	D	2.56	C	2.70	C
		NB	D	2.92	C	3.64	D
		SB	D	3.54	D	3.81	D
9	Los Osos Valley Road & Calle Joaquin	EB	D	3.10	C	3.13	C
		WB	D	3.21	C	3.43	C
		NB	D	1.62	B	2.19	B
		SB	D	1.96	B	0.91	A
10	Los Osos Valley Road & US 101 SB Ramps	EB	D	n/a			
		WB	D	2.78	C	2.37	B
		NB	D	1.73	B	2.34	B
		SB	D	1.76	B	2.10	B
11	Los Osos Valley Road & US 101 NB Ramps	EB	D	4.02	D	3.85	D
		WB	D	1.39	A	1.39	A
		NB	D	1.74	B	2.33	B
		SB	D	2.40	B	2.29	B
12	Los Osos Valley Road & S. Higuera Street	EB	D	2.10	B	1.84	B
		WB	D	n/a			
		NB	D	2.34	B	2.28	B
		SB	D	2.23	B	3.48	C
14	S. Higuera Street & Suburban Road	EB	D	n/a			
		WB	D	1.20	A	1.58	B

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
		NB	D	2.65	C	2.05	B
		SB	D	1.94	B	2.49	B
15	S. Higuera Street & Tank Farm Road	EB	D	2.72	C	2.67	C
		WB	D	2.33	B	3.49	C
		NB	D	2.49	B	2.26	B
		SB	D	1.95	B	2.30	B
16	S. Higuera Street & Prado Road	EB	D	3.01	C	2.14	B
		WB	D	2.17	B	2.73	C
		NB	D	2.13	B	2.88	C
		SB	D	2.40	B	2.37	B
18	Madonna Road & Oceanaire Drive	EB	D	3.11	C	2.73	C
		WB	D	1.47	A	1.95	B
		NB	D	2.86	C	2.78	C
		SB	D	2.59	C	2.29	B
		SE	D	2.69	C	2.62	C
		NE	D	2.20	B	2.20	B
19	Madonna Road & Dalidio Drive	EB	D	2.20	B	2.18	B
		WB	D	1.59	B	1.79	B
		NB	D	2.34	B	3.69	D
		SB	D	1.58	B	1.93	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	D	1.91	B	1.92	B
		WB	D	1.60	B	1.81	B
		NB	D	3.29	C	3.35	C
		SB	D	2.93	C	2.99	C
21	Madonna Road & US 101 NB Ramps	EB	D	2.36	B	2.19	B
		WB	D	1.57	B	2.05	B
		NB	D	2.14	B	2.13	B
		SB	D	n/a			

Notes:
Bicycle LOS summary excludes unsignalized intersections and locations where no bicycle facilities are provided as HCM 6th Bike LOS Methodology do not model segments bounded by unsignalized intersections.

As shown in **Table 3.1-83**, under the Cumulative (2035) conditions evaluated in the traffic study, no intersections are projected to exceed the City's minimum bicycle LOS threshold.

Table 3.1-84: Cumulative Conditions – 95th Percentile Queuing Analysis

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Cumulative Conditions
1	Los Osos Valley Road/Foothill Boulevard	WBR	180	AM	0
				PM	0
		NBL	120	AM	0
				PM	15
		NBR	370	AM	90
				PM	135
		SBL	490	AM	#430
				PM	#340
3	Los Osos Valley Road/Laguna Lane	WBL	Trap Lane	AM	75
				PM	50
		WBR	Trap Lane	AM	30
				PM	25
		NBR	80	AM	60
				PM	35
		SBL	120	AM	55
				PM	30
5	Los Osos Valley Road/Royal Way	EBR	70	AM	45
				PM	20
		WBR	70	AM	0
				PM	0
		NBL	110	AM	30
				PM	**#140**
		SBL	160	AM	15
				PM	15
		SBR	50	AM	0
				PM	0
6	Los Osos Valley Road/Madonna Road	EBL	230	AM	100
				PM	80
		WBL	Trap Lane	AM	90
				PM	160
		WBR	170	AM	70
				PM	85
		NBL	200	AM	#90
				PM	#175
		NBR	175	AM	40
				PM	35
		SBL	350	AM	#295
				PM	#265
7	Los Osos Valley Road/Froom Ranch Way	EBL	250	AM	40
				PM	**160**
		EBR	250	AM	0
				PM	65
		WBL	295	AM	60

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Cumulative Conditions
				PM	125
		WBR	50	AM	0
				PM	50
		NBL	300	AM	#120
				PM	#275
		SBL	160	AM	#75
				PM	125
8	Los Osos Valley Road/Auto Parkway (Project Driveway)	EBL	100	AM	-
				PM	-
		EBR	100	AM	-
				PM	-
		WBL	Trap Lane	AM	25
				PM	70
		WBR	175	AM	20
				PM	40
		NBL	200	AM	-
				PM	-
		SBL	100	AM	30
				PM	50
		SBR	100	AM	-
				PM	-
9	Los Osos Valley Road/Calle Joaquin	EBL	260	AM	25
				PM	40
		EBR	260	AM	20
				PM	40
		WBL	100	AM	60
				PM	**185**
		NBL	130	AM	50
				PM	55
		NBR	130	AM	55
				PM	50
		SBL	120	AM	40
				PM	30
		SBR	120	AM	0
				PM	10
10	Los Osos Valley Road/US 101 SB Ramps	WBR	190	AM	65
				PM	**#190**
		NBL	220	AM	#35
				PM	#70
		SBR	120	AM	60
				PM	50
11	Los Osos Valley Road/US 101 NB Ramps	EBL	610	AM	#385
				PM	295
		NBL	400	AM	85

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Cumulative Conditions
				PM	140
		SBR	133	AM	10
				PM	20
12	Los Osos Valley Road/S. Higuera Street	EBL	Trap Lane	AM	#395
				PM	#275
		EBR	100	AM	40
				PM	60
		NBL	200	AM	60
				PM	**#300**
		SBR	Trap Lane	AM	50
				PM	300
14	S. Higuera Street/Suburban Road	WBL	Trap Lane	AM	95
				PM	180
		SBL	170	AM	#155
				PM	**#175**
15	S. Higuera Street/Tank Farm Road	EBR	Trap Lane	AM	0
				PM	0
		WBL	Trap Lane	AM	150
				PM	#365
		WBR	250	AM	35
				PM	50
		NBL	140	AM	45
				PM	50
		NBR	100	AM	80
				PM	30
		SBL	165	AM	**#255**
				PM	**#305**
16	S. Higuera Street/Prado Road	EBL	300	AM	55
				PM	#65
		EBR	300	AM	60
				PM	40
		WBL	120	AM	#85
				PM	105
		WBR	200	AM	30
				PM	80
		NBL	300	AM	#205
				PM	#275
		NBR	120	AM	10
				PM	5
		SBL	300	AM	#245
				PM	#120
		SBR	120	AM	10
				PM	10
18	Madonna Road/Oceanaire Drive	EBL	115	AM	40

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Cumulative Conditions
				PM	#70
		WBL	115	AM	#70
				PM	**#255**
		WBR	100	AM	**220**
				PM	**#330**
		NBR	50	AM	0
				PM	0
19	Madonna Road/Dalidio Drive	EBL	145	AM	45
				PM	#60
		EBR	100	AM	**#420**
				PM	**#290**
		WBL	350	AM	#230
				PM	#295
		NBL	150	AM	140
				PM	**#440**
		NBR	150	AM	5
				PM	65
		SBR	50	AM	0
				PM	0
20	Madonna Road/US 101 SB Ramps/Madonna Inn	EBL	100	AM	50
				PM	60
		WBL	260	AM	130
				PM	m#200
		NBL	Trap Lane	AM	#210
				PM	#340
		NBR	275	AM	130
				PM	45
		SBL	Trap Lane	AM	25
				PM	35
		SBR	100	AM	0
				PM	0
21	Madonna Road & US 101 NB Ramps	EBL	435	AM	180
				PM	#305
		NBL	185	AM	40
				PM	105

Notes:
Queue length rounded to nearest five feet. Queuing analysis is reported for signalized intersections only.
Bold: 95th percentile volume exceeds capacity.
m queue is metered by upstream intersection.
95th percentile queue exceeds capacity
Trap - denotes design where the thru-lane terminates in a turn-lane.
Westbound thru-lane (WBL); Westbound right-turn lane (WBR); Eastbound thru-lane (EBL); Northbound thru-lane (NBL); Northbound right-turn lane (NBR); Northbound trap (NBT); Southbound thru-lane (SBL); Southbound trap (SBT); Southbound right-turn lane (SBR)

As shown in **Table 3.1-84**, the following intersection have vehicle queues that exceed lane capacity during p.m. peak hour:

- Los Osos Valley Road and Royal Way (NBL during p.m. peak hour)
- Los Osos Valley Road and Calle Joaquin (WBL during p.m. peak hour)
- Los Osos Valley Road and US 101 SB Ramps (SBR and WBR during p.m. peak hour)
- Los Osos Valley Road and S Higuera Street (NBL during p.m. peak hour)
- S Higuera Street and Suburban Street (SBL during p.m. peak hour)
- S Higuera Street and Tank Farm Road (SBL during both the a.m. and p.m. peak hours)
- Madonna Road and Oceanaire Drive (WBL during p.m. peak hour and WBR during both the a.m. and the p.m. hours)
- Madonna Road and Dalidio Drive (EBR during both the a.m. and the p.m. peak hours and NBL during the p.m. peak hour)

Table 3.1-85 through **Table 3.1-88** provides a summary of the multimodal a.m. and p.m. peak hour segment LOS under Cumulative (2035) conditions.

As shown in **Table 3.1-85**, under Cumulative (2035) conditions, following roadway segments are projected to exceed City's minimum automobile threshold:

- Los Osos Valley Road from Oceanaire Drive to Madonna Road operates at LOS F during a.m. peak hour and p.m. peak hour in the southbound direction
- Los Osos Valley Road from Madonna Road to Froom Ranch Way operates at LOS E in the northbound direction during p.m. peak hour
- Los Osos Valley Road from US 101 NB ramps to US 101 SB Ramps operates at LOS E in the southbound directions during p.m. peak hour
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS E during p.m. peak hour in northbound direction

As shown in **Table 3.1-86**, under Cumulative (2035) conditions, following roadway segments are projected to exceed City's minimum pedestrian threshold:

- Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive operates at LOS D during a.m. and p.m. peak hour in the southbound direction and operates at LOS D during p.m. peak hour in northbound direction.
- Los Osos Valley Road from Madonna Road to Froom Ranch Way operates at LOS F during a.m. peak hour in the northbound direction and operates at LOS D during p.m. peak hour in the northbound direction.
- Los Osos Valley Road from Froom Ranch Way to Calle Joaquin operates at LOS D during a.m. and p.m. peak hours in the southbound direction.

- Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps operates at LOS D in southbound direction during a.m. and p.m. peak hours and operates at LOS D in northbound direction during p.m. peak hour.
- Los Osos Valley Road from US 101 NB Ramps to South Higuera Street operates at LOS E during a.m. peak hour and operates at LOS D during p.m. peak hour in the southbound direction and operates at LOS D during p.m. peak hour in the northbound direction.
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS D during p.m. peak hours in the southbound direction.
- South Higuera Street from Tank Farm Road to Prado Road operates at LOS F during a.m. and p.m. peak hours in the southbound direction.
- Madonna Road from Los Osos Valley Road to Dalidio Drive operates at LOS F in eastbound direction during a.m. peak hour. In the westbound direction the segment is projected to operate at LOS F during a.m. peak hour and at LOS D during p.m. peak hour.

As shown in **Table 3.1-89**, under Cumulative (2035) conditions, following freeway segments currently exceeds Caltrans minimum thresholds:

- US 101 southbound, north of Madonna Road operates at LOS D during p.m. peak hour
- US 101 southbound, Madonna Road On Ramp operates at LOS E during p.m. peak hour
- US 101 southbound, north of Prado Road operates at LOS D during p.m. peak hour
- US 101 southbound, Prado Road Off Ramp operates at LOS D during p.m. peak hour
- US 101 southbound, Prado Road On Ramp operates at LOS D during p.m. peak hour
- US 101 southbound, Los Osos Valley Road On Ramp operates at LOS D during p.m. peak hour
- US 101 southbound, north of South Higuera Street operates at LOS E during p.m. peak hour

Detailed roadway segment analysis worksheets are included in **Appendix C**, detailed freeway analysis worksheets for mainline, merge and diverge worksheets are attached in **Appendix D**, and detailed Leisch method analysis worksheets for weave segments are attached in **Appendix E**.

Table 3.1-85: Cumulative Segment LOS: Automobile Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	31.61	45.46	69.53%	B	32.57	45.46	71.6%	B
		NB	D	28.68	45.45	63.10%	C	26.80	45.45	59.0%	C
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	**11.43**	**42.64**	**26.81%**	**F**	**7.54**	**42.64**	**17.7%**	**F**
		NB	D	23.49	45.68	51.42%	C	22.74	45.68	49.8%	D
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	26.83	44.82	59.86%	C	20.07	44.83	44.8%	D
		NB	D	18.14	44.83	40.46%	D	**15.95**	**44.82**	**35.6%**	**E**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	35.24	44.80	78.66%	B	31.92	44.80	71.3%	B
		NB	D	31.86	45.22	70.46%	B	26.88	45.22	59.4%	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	21.07	45.33	46.48%	D	**17.16**	**45.33**	**37.9%**	**E**
		NB	D	18.19	40.66	44.74%	D	25.48	45.36	56.2%	C
6	Los Osos Valley Road from US 101 NB Ramps to South Higuera Street	SB	D	18.90	40.64	46.51%	D	20.28	40.78	49.7%	D
		NB	D	26.93	41.19	65.38%	C	31.76	45.77	69.4%	B
7	South Higuera Street from City Limit south to US 101/Clover Ridge Lane (No Ped or Transit LOS)	SB	D	44.35	45.72	97.00%	A	43.13	45.72	94.3%	A
		NB	D	40.07	45.73	87.62%	A	42.55	45.73	93.0%	A
8	South Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	22.96	45.33	50.65%	C	17.98	45.34	44.1%	E
		NB	D	19.87	45.68	43.50%	D	**14.97**	**45.69**	**32.8%**	**E**
9	South Higuera Street from Tank Farm Road to Prado Road	SB	D	33.01	45.21	73.01%	B	24.90	45.23	55.1%	C
		NB	D	27.90	45.21	61.71%	C	23.41	45.24	51.7%	C

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
10	Tank Farm Road from South Higuera Street to Broad Street (No Ped or Transit LOS)	EB	D	33.99	43.15	78.77%	B	34.29	43.15	79.5%	B
		WB	D	33.34	42.40	78.63%	B	34.76	42.38	82.0%	A
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	21.74	38.92	55.86%	C	22.44	39.14	57.3%	C
		WB	D	21.10	38.84	54.33%	C	21.34	39.15	54.5%	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	31.54	41.09	76.76%	B	29.47	41.09	71.7%	B
		WB	D	30.24	41.08	73.61%	B	27.71	41.08	67.5%	B

Notes:
Bold indicates unacceptable operations.

Table 3.1-86: Cumulative Segment LOS: Pedestrian Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	C	**3.77**	**D**	**3.72**	**D**
		NB	C	3.35	C	**4.24**	**D**
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	C	3.49	C	3.37	C
		NB	C	2.84	C	3.22	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	C	3.35	C	3.45	C
		NB	C	**3.17**	**F**	**3.61**	**D**
4		SB	C	**3.54**	**D**	**3.71**	**D**

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	NB	C	3.33	C	3.45	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	C	**3.84**	**D**	**3.57**	**D**
		NB	C	3.35	C	**3.88**	**D**
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	C	**4.61**	**E**	**3.87**	**D**
		NB	C	**3.68**	**D**	3.21	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	C	3.16	C	**3.81**	**D**
		NB	C	2.92	C	2.88	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	C	**3.56**	**F**	**4.30**	**F**
		NB	C	2.70	C	3.43	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	C	**4.35**	**F**	3.03	C
		WB	C	**3.71**	**F**	**3.79**	**D**
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	C	2.33	C	2.90	C
		WB	C	3.3	C	3.26	C

Notes:
Bold indicates unacceptable operations.

Table 3.1-87: Cumulative Segment LOS: Bicycle Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.07	B	2.05	B
		NB	D	1.63	A	1.92	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.38	C	2.32	C
		NB	D	1.58	A	1.84	A
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	2.65	C	2.65	C
		NB	D	1.46	A	1.82	A
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	2.55	C	2.67	C
		NB	D	1.84	A	2.06	B
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	2.85	C	2.84	C
		NB	D	2.54	C	2.98	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	2.44	C	2.40	C
		NB	D	1.85	A	1.95	A
7	S. Higuera Street from City Limit south to US 101/Clover Ridge Ln (No Ped or Transit LOS)	SB	D	1.63	A	1.88	A
		NB	D	1.70	A	1.48	A
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	2.54	C	2.92	C
		NB	D	2.92	C	2.85	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	2.53	C	2.72	C
		NB	D	2.13	B	2.44	C
10	Tank Farm Road from S. Higuera Street to Broad Street (No Ped or Transit LOS)	EB	D	2.82	C	2.67	C
		WB	D	2.94	C	2.97	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.11	C	2.97	C
		WB	D	2.22	B	2.44	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	0.78	A	0.92	A
		WB	D	1.41	A	1.44	A

Notes:
Bold indicates unacceptable operations.

Table 3.1-88: Cumulative Segment LOS: Transit Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.93	C	2.92	C
		NB	D	1.77	A	2.04	B
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.57	C	2.56	C
		NB	D	2.80	C	2.90	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	3.55	D	3.74	D
		NB	D	2.05	B	2.15	B
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	3.09	C	3.20	C
		NB	D	3.25	C	3.42	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	4.08	D	3.56	D
		NB	D	3.65	D	3.31	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	4.13	D	4.56	D
		NB	D	3.20	C	4.04	D
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	3.57	D	4.02	D
		NB	D	3.30	C	4.26	D
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.34	C	3.20	C
		WB	D	3.33	C	3.30	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	0.28	A	0.38	A
		WB	D	0.95	A	1.11	A

Notes:
Segments with no transit stops are excluded from the analysis.

Table 3.1-89: Cumulative Segment LOS: Freeway Mainline, Ramps & Weaving Section Analysis

#	Interchange Location	Target LOS	Segment Type	Lanes	AM Peal Hour			PM Peal Hour		
					Volume	Density (pc/mi/ln)	LOS	Volume	Density (pc/mi/ln)	LOS
US 101 Northbound										
	US 101 NB, south of S Higuera Street	C	Freeway	3	2,794	15.8	C	2,840	16.1	B
	US 101 NB, south of Los Osos Valley Road	C	Freeway	3	3,111	17.6	B	2,382	13.5	B
	US 101 NB Los Osos Valley Road Off Ramp	C	Diverge	1	774	20.0	C	682	15.5	B
	US 101 NB Los Osos Valley Road On Ramp	C	Merge	1	164	20.0	B	444	17.2	B
	US 101 NB, north of Prado Road	C	Freeway	3	2,764	15.6	B	2,660	15.0	B
	US 101 NB Prado Road Off Ramp	C	Diverge	1	605	17.7	B	202	16.7	B
	US 101 NB Prado Road On Ramp	C	Merge	1	436	19.6	B	793	21.3	C
	US 101 NB, south of Madonna Road	C	Freeway	4	3,401	14.4	B	3,704	15.7	B
	US 101 NB, Madonna Road Off Ramp	C	Diverge	1	228	15.1	B	231	16.5	B
US 101 Southbound										
	US 101 SB, north of Madonna Road	C	Freeway	2	2,354	20.0	C	3,500	**31.7**	**D**
	US 101 SB Madonna Road On Ramp	C	Merge	1	190	25.7	C	292	**39.3**	**E**
	US 101 SB, north of Prado Road	C	Freeway	2	2,187	18.6	C	3,560	**32.5**	**D**
	US 101, Prado Road Off Ramp	C	Diverge	1	638	22.6	C	372	**36.4**	**D**
	US 101, Prado Road On Ramp	C	Merge	1	114	22.0	C	173	**36.0**	**D**
	US 101 SB, south of Los Osos Valley Road	C	Freeway	2	1,451	12.3	B	2,645	22.5	C
	US 101 SB Los Osos Valley Road Off Ramp	C	Diverge	1	688	15.0	B	372	27.0	C
	US 101 SB Los Osos Valley Road On Ramp	C	Merge	1	516	18.6	B	728	**33.4**	**D**
	US 101 SB, north of S Higuera Street	C	Freeway	2	2,604	22.1	C	4,209	**43.8**	**E**

Notes:
Bold indicates unacceptable operations.

Table 3.1-90: Cumulative Weaving Section Analysis: Leisch Method

Interchange Location	Target LOS	Segment Type	No. of Lanes	Length	AM Peak		PM Peak	
					Total Volume	LOS	Total Volume	LOS
US 101 Northbound								
Between Los Osos Valley Road and Prado Road	C	Weave	3	4,380	3,911	A	3,350	A
Between Prado Road and Madonna Road	C	Weave	4	940	4,104	C	4,751	C
US 101 Southbound								
Between Madonna Road and Prado Road	C	Weave	2	910	3,219	C	4,275	C
Between Prado Road and Los Osos Valley Road	C	Weave	3	5,490	3,032	B	4,252	A

3.3.9.3 Cumulative (2035) Plus Project MMLOS Analysis

The project generated peak hour trips were added to the derived Cumulative volumes to obtain Cumulative plus Project traffic demands.

Table 3.1-91 through **Table 3.1-94** provides a summary of multimodal a.m. and p.m. peak hour intersection LOS and queuing under Cumulative (2035) plus Project conditions. **Table 3.1-92** through **Table 3.1-95** provides a summary of the multimodal a.m. and p.m. peak hour segment LOS under Cumulative (2035) plus project conditions. Detailed Synchro LOS worksheets are included in **Appendix A**

Table 3.1-91: Cumulative Plus Project Intersection LOS – Automobile Analysis

ID	Study Intersections	LOS Target	Peak Hour	Cumulative Conditions			Cumulative plus Project			
				Delay[1]	LOS[2]	V/C[3]	Delay[1]	LOS[2]	V/C[3]	Change in V/C
1	Los Osos Valley Road & Foothill Boulevard	D	AM	22.8	C		23.3	C		
			PM	**58.7**	**E**	**1.05**	**60.5**	**E**	**1.07**	**0.02**
2	Los Osos Valley Road & Prefumo Canyon Road	D	AM	22.2	C		22.7	C		
			PM	**51.1**	**F[5]**	**0.66**	**54.0**	**F[5]**	**0.70**	**0.04**
3	Los Osos Valley Road & Laguna Lane	D	AM	9.8	A		9.8	A		
			PM	8.3	A		8.4	A		
4	Los Osos Valley Road & Oceanaire Drive	D	AM	**45.7**	**E[5]**	**0.44**	**49.9**	**E[5]**	**0.48**	**0.04**
			PM	**126.0**	**F[5]**	**1.04**	**141.8**	**F[5]**	**1.13**	**0.09**
5	Los Osos Valley Road & Royal Way	D	AM	38.6	D		39.6	D		
			PM	35.1	D		37.0	D		
6	Los Osos Valley Road & Madonna Road	D	AM	35.7	D		36.3	D		
			PM	48.1	D		48.3	D		
7	Los Osos Valley Road & Froom Ranch Way	D	AM	21.5	C		21.7	C		
			PM	35.5	D		37.2	D		
8	Los Osos Valley Road & Auto Park Way	D	AM	4.9	A		9.5	A		
			PM	8.1	A		14.0	B		
9	Los Osos Valley Road & Calle Joaquin	D	AM	9.6	A		9.7	A		
			PM	16.0	B		16.5	B		
10	Los Osos Valley Road & US 101 SB Ramps	C	AM	21.5	C		20.0	B		
			PM	22.6	C		25.4	C		
11	Los Osos Valley Road & US 101 NB Ramps	C	AM	26.4	C		26.8	C		
			PM	25.6	C		25.5	C		
12	Los Osos Valley Road & S. Higuera Street	D	AM	17.3	B		17.7	B		
			PM	27.4	C		28.8	C		
13	S. Higuera Street & Vachelle Lane	D	AM	30.0	D		31.2	D		
			PM	14.8	B		15.1	C		
14	S. Higuera Street & Suburban Road[4]	D	AM	10.5	B		13.7	B		
			PM	13.7	B		14.3	B		
15	S. Higuera Street & Tank Farm Road[4]	D	AM	34.8	C		37.0	D		
			PM	37.0	D		38.2	D		
16	S. Higuera Street & Prado Road	D	AM	45.1	D		45.7	D		
			PM	37.9	D		38.6	D		

ID	Study Intersections	LOS Target	Peak Hour	Cumulative Conditions			Cumulative plus Project			
				Delay[1]	LOS[2]	V/C[3]	Delay[1]	LOS[2]	V/C[3]	Change in V/C
17	Prado Road/US 101 NB Ramps	C	AM	21.1	C		21.7	C		
			PM	21.9	C		22.7	C		
18	Madonna Road & Oceanaire Drive[4]	D	AM	39.0	D		41.2	D		
			PM	30.1	C		31.5	C		
19	Madonna Road & Dalidio Drive	D	AM	34.9	C		34.8	C		
			PM	48.9	D		48.8	D		
20	Madonna Road & US 101 SB Ramps/Madonna Inn	C	AM	33.1	C		23.8	C		
			PM	23.7	C		23.6	C		
21	Madonna Road & US 101 NB Ramps	C	AM	15.3	B		16.5	B		
			PM	34.3	C		32.3	C		
22	Dalidio Drive & Froom	D	AM	7.9	A		8.2	A		
			PM	15.4	C		15.7	B		
23	Prado Road & US 101 SB Ramps	C	AM	11.2	B		11.5	B		
			PM	7.9	A		8.0	A		
24	Collector A & Collector B (on-site)	D	AM	-	-		3.4	A		
			PM	-	-		3.7	A		

Notes:
[1]Delay – Whole intersection weighted average control delay expressed in seconds per vehicle for signalized and all-way stop controlled intersections. Total control delay for the worst movement is presented for side-street stop controlled intersections.
[2]LOS – Levels of Service
[3] Volume-to-capacity ratio reported for worst movement only.
[4]HCM 6th Methodology does not support intersections with more than four approaches. Hence HCM 2000 Methodology used for intersections 14, 15 and 18
[5]Impact is less than significant because signalization is not warranted.
Bold indicates unacceptable operations.

As shown in **Table 3.1-91**, under Cumulative plus Project Conditions the project would further degrade LOS that operates unacceptably under Cumulative Conditions and would increase v/c by more than 0.01, at the following intersection that exceed the City's minimum automobile LOS, thus resulting in potentially significant impact:

- Los Osos Valley Road & Foothill Boulevard operates at LOS E during p.m. peak hour
- Los Osos Valley Road & Prefumo Canyon operates at LOS F during p.m. peak hour, but conditions do not satisfy signal warrants
- Los Osos Valley Road & Oceanaire operates at LOS F during bot peak hours, but conditions do not satisfy signal warrants

Table 3.1-92: Cumulative Plus Project Intersection LOS – Pedestrian Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	C	1.74	B	1.75	B
		WB	C	2.48	B	2.43	B
		NB	C	2.73	C	2.85	C
		SB	C	2.82	C	3.01	C
2	Los Osos Valley Road & Prefumo Canyon Road[1]	EB	C	n/a			
		WB	C				
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	**>5.0**	**F**	**>5.0**	**F**
3	Los Osos Valley Road & Laguna Lane	EB	C	n/a			
		WB	C	2.30	B	2.22	B
		NB	C	2.79	C	2.93	C
		SB	C	2.89	C	3.18	C
4	Los Osos Valley Road & Oceanaire Drive[1]	EB	C	n/a	n/a	n/a	n/a
		WB	C	n/a	n/a	n/a	n/a
		NB	C	**>5.0**	**F**	**>5.0**	**F**
		SB	C	n/a			
5	Los Osos Valley Road & Royal Way	EB	C	2.01	B	2.02	B
		WB	C	1.98	B	1.99	B
		NB	C	3.12	C	3.30	C
		SB	C	3.12	C	3.26	C
6	Los Osos Valley Road & Madonna Road	EB	C	2.10	B	2.12	B
		WB	C	3.00	C	3.05	C
		NB	C	3.04	C	3.22	C
		SB	C	3.44	C	**3.54**	**D**
7	Los Osos Valley Road & Froom Ranch Way	EB	C	2.64	C	2.76	C
		WB	C	2.58	C	2.66	C
		NB	C	3.15	C	3.33	C
		SB	C	3.12	C	3.29	C
8	Los Osos Valley Road & Auto Park Way	EB	C	2.22	B	2.22	B
		WB	C	2.02	B	2.02	B
		NB	C	3.07	C	3.36	C
		SB	C	3.05	C	3.36	C
9	Los Osos Valley Road & Calle Joaquin	EB	C	2.47	B	2.49	B
		WB	C	2.13	B	2.16	B
		NB	C	3.19	C	**3.54**	**D**
		SB	C	3.02	C	3.35	C
10	Los Osos Valley Road & US 101 SB Ramps	EB	C	2.06	B	2.27	B
		WB	C	2.30	B	2.14	B
		NB	C	3.03	C	3.17	C
		SB	C	3.11	C	3.43	C
11	Los Osos Valley Road & US 101 NB Ramps	EB	C	2.53	C	2.58	C
		WB	C	1.42	A	1.42	A
		NB	C	2.93	C	2.96	C

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Ped. Crosswalk Score	LOS	Ped. Crosswalk Score	LOS
		SB	C	3.04	C	3.16	C
12	Los Osos Valley Road & S. Higuera Street	EB	C	2.85	C	2.97	C
		WB	C	n/a			
		NB	C	2.46	B	2.68	C
		SB	C	2.87	C	2.91	C
13	S. Higuera Street & Vachelle Lane[1]	EB	C	n/a			
		WB	C				
		NB	C				
		SB	C				
14	S. Higuera Street & Suburban Road	EB	C	n/a			
		WB	C	2.24	B	2.33	B
		NB	C	3.15	C	3.16	C
		SB	C	2.89	C	2.93	C
15	S. Higuera Street & Tank Farm Road	EB	C	2.02	B	2.02	B
		WB	C	3.01	C	3.04	C
		NB	C	3.43	C	**3.53**	**D**
		SB	C	2.88	C	3.07	C
16	S. Higuera Street & Prado Road	EB	C	3.36	C	3.16	C
		WB	C	3.25	C	3.07	C
		NB	C	3.04	C	3.18	C
		SB	C	3.04	C	3.16	C
18	Madonna Road & Oceanaire Drive	EB	C	2.88	C	2.89	C
		WB	C	3.40	C	3.39	C
		NB	C	2.03	B	2.01	B
		SB	C	2.08	B	1.97	B
		SE	C	1.84	B	1.87	B
		NE	C	1.79	B	1.78	B
19	Madonna Road & Dalidio Drive	EB	C	3.13	C	3.21	C
		WB	C	3.10	C	3.15	C
		NB	C	2.77	C	2.86	C
		SB	C	1.99	B	2.00	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	C	2.93	C	3.04	C
		WB	C	2.95	C	2.98	C
		NB	C	2.77	C	2.79	C
		SB	C	2.18	B	2.19	B
21	Madonna Road & US 101 NB Ramps	EB	C	2.89	C	2.92	C
		WB	C	2.74	C	2.75	C
		NB	C	1.98	B	1.96	B
		SB	C	2.04	B	2.16	B

Notes:
[1]For unsignalized AWSC intersections, pedestrian delay is reported as pedestrian LOS methodology is not supported for crosswalks that intersect stop-sign controlled approaches. For unsignalized TWSC intersections, pedestrian LOS methodology is limited to the uncontrolled crossings.

As shown in **Table 3.1-92**, under Cumulative plus Project Conditions the project causes minimum LOS standards to be exceeded or further degrades already exceeded LOS standards for pedestrian LOS at following intersections:

- Los Osos Valley Road & Prefumo Canyon Road (#2): this side-street stop-sign controlled intersection operates with unacceptable intersection LOS for pedestrians due to the uncontrolled crossing of four motor vehicle lanes across Los Osos Valley Road. This impact is less than significant given the contextual location: no land uses are directly accessible on the east side of Los Osos Valley Road near this intersection, thus potential demand for pedestrian crossings is low.
- Los Osos Valley Road & Oceanaire Drive (#4): this side-street stop-sign controlled intersection operates with unacceptable intersection LOS for pedestrians due to the uncontrolled crossing of four motor vehicle lanes across Los Osos Valley Road. While Project traffic would exacerbate the unacceptable pedestrian LOS, this impact is considered to be less than significant given the contextual location and characteristics: there is very little existing pedestrian crossing demand, warrants for installation of a marked pedestrian crossing or enhanced crossing device (i.e. signal or pedestrian hybrid beacon) are unlikely to be met even if considering latent crossing demand, existing signalized crossings are present within one block to the north (Laguna Ln.) or south (Royal Way).
- Los Osos Valley Road and Madonna Road (#6): addition of project traffic exacerbates the unacceptable LOS crossing Los Osos Valley Road during the p.m. peak hour.
- Los Osos Valley Road and Calle Joaquin (#9): this signalized intersection operates with unacceptable intersection LOS for pedestrians at the northbound approach during the p.m. peak hour due to heavy traffic volumes and lengthy traffic signal cycle lengths. Addition of project traffic exacerbates these conditions.
- S. Higuera Street & Tank Farm (#13): this signalized intersection operates with unacceptable intersection LOS for pedestrians at the northbound approach during the p.m. peak hour due to heavy traffic volumes and lengthy traffic signal cycle lengths. Addition of project traffic exacerbates these conditions.

Table 3.1-93: Cumulative Plus Project Intersection LOS – Bicycle Analysis

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
1	Los Osos Valley Road & Foothill Boulevard	EB	D	2.71	C	2.71	C
		WB	D	3.32	C	3.96	D
		NB	D	2.86	C	3.40	C
		SB	D	2.78	C	2.05	B
3	Los Osos Valley Road & Laguna Lane	EB	D	n/a			
		WB	D	2.96	C	2.79	C
		NB	D	1.85	B	2.48	B
		SB	D	1.63	B	1.63	B
5	Los Osos Valley Road & Royal Way	EB	D	3.15	C	2.97	C
		WB	D	3.21	C	2.95	C
		NB	D	2.69	C	3.19	C
		SB	D	2.30	B	2.24	B
6	Los Osos Valley Road & Madonna Road	EB	D	3.34	C	3.18	C
		WB	D	3.78	D	4.45	D
		NB	D	1.70	B	2.18	B
		SB	D	3.09	C	2.75	C
7	Los Osos Valley Road & Froom Ranch Way	EB	D	3.52	D	4.42	D
		WB	D	2.33	B	2.93	C
		NB	D	1.85	B	2.42	B
		SB	D	1.89	B	1.94	B
8	Los Osos Valley Road & Auto Park Way	EB	D	2.89	C	2.90	C
		WB	D	2.92	C	3.06	C
		NB	D	2.97	C	3.70	D
		SB	D	3.45	C	3.73	D
9	Los Osos Valley Road & Calle Joaquin	EB	D	3.10	C	3.13	C
		WB	D	3.21	C	3.43	C
		NB	D	1.66	B	2.25	B
		SB	D	2.02	B	0.98	A
10	Los Osos Valley Road & US 101 SB Ramps	EB	D	n/a			
		WB	D	2.96	C	2.41	B
		NB	D	1.84	B	2.39	B
		SB	D	1.84	B	2.16	B
11	Los Osos Valley Road & US 101 NB Ramps	EB	D	4.12	D	3.88	D
		WB	D	1.39	A	1.39	A
		NB	D	1.83	B	2.36	B
		SB	D	2.47	B	2.33	B
12	Los Osos Valley Road & S. Higuera Street	EB	D	2.12	B	1.86	B
		WB	D	n/a			
		NB	D	2.36	B	2.29	B
		SB	D	2.27	B	3.53	D
14		EB	D	n/a			

ID	Study Intersections	Approach	Target LOS	AM Peak Hour		PM Peak Hour	
				Bicycle LOS Score	LOS	Bicycle LOS Score	LOS
	S. Higuera Street & Suburban Road	WB	D	1.20	A	1.58	B
		NB	D	2.73	C	2.07	B
		SB	D	1.97	B	2.53	C
15	S. Higuera Street & Tank Farm Road	EB	D	2.72	C	2.67	C
		WB	D	2.43	B	3.52	D
		NB	D	2.52	C	2.28	B
		SB	D	1.98	B	2.32	B
16	S. Higuera Street & Prado Road	EB	D	3.48	C	2.15	B
		WB	D	2.25	B	2.73	C
		NB	D	2.14	B	2.90	C
		SB	D	2.43	B	2.37	B
18	Madonna Road & Oceanaire Drive	EB	D	3.00	C	2.74	C
		WB	D	1.60	B	2.18	B
		NB	D	2.88	C	2.78	C
		SB	D	2.83	C	2.29	B
		SE	D	2.62	C	2.62	C
		NE	D	2.20	B	2.20	B
19	Madonna Road & Dalidio Drive	EB	D	2.28	B	2.19	B
		WB	D	1.66	B	1.80	B
		NB	D	2.64	C	3.69	D
		SB	D	1.61	B	1.93	B
20	Madonna Road & US 101 SB Ramps/Madonna Inn	EB	D	1.88	B	1.92	B
		WB	D	1.61	B	1.82	B
		NB	D	3.40	C	3.35	C
		SB	D	2.96	C	2.99	C
21	Madonna Road & US 101 NB Ramps	EB	D	2.43	B	2.20	B
		WB	D	1.64	B	2.06	B
		NB	D	2.19	B	2.13	B
		SB	D	n/a			

Notes:
Bicycle LOS summary excludes unsignalized intersections and locations where no bicycle facilities are provided as HCM 6th Bike LOS Methodology do not model segments bounded by unsignalized intersections.

As shown in **Table 3.1-93**, under Cumulative plus Project Conditions, no intersections within the study facilities are projected to exceed bicycle LOS standards.

Table 3.1-94: Cumulative plus Project – 95th Percentile Queuing Analysis

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Cumulative Conditions	Cumulative Plus Project Conditions	Change in Queue
1	Los Osos Valley Road/Foothill Boulevard	WBR	180	AM	0	0	0
				PM	0	0	0
		NBL	120	AM	0	0	0
				PM	15	15	0
		NBR	370	AM	90	90	0
				PM	135	140	5
		SBL	490	AM	#430	#430	0
				PM	#340	#340	0
3	Los Osos Valley Road/Laguna Lane	WBL	Trap Lane	AM	75	75	0
				PM	50	50	0
		WBR	Trap Lane	AM	30	30	0
				PM	25	25	0
		NBR	80	AM	60	60	0
				PM	35	35	0
		SBL	120	AM	55	55	0
				PM	30	30	0
5	Los Osos Valley Road/Royal Way	EBR	70	AM	45	45	0
				PM	20	20	0
		WBR	70	AM	0	0	0
				PM	0	0	0
		NBL	110	AM	30	30	0
				PM	**#140**	**#145**	**5**
		SBL	160	AM	15	15	0
				PM	15	15	0
		SBR	50	AM	0	0	0
				PM	0	0	0
6	Los Osos Valley Road/Madonna Road	EBL	230	AM	100	100	0
				PM	80	80	0
		WBL	Trap Lane	AM	90	95	5
				PM	160	170	10
		WBR	170	AM	70	70	0
				PM	85	85	0
		NBL	200	AM	#90	#95	5
				PM	#175	#180	5
		NBR	175	AM	40	40	0
				PM	35	35	0
		SBL	350	AM	#295	#295	0
				PM	#265	#265	0
7	Los Osos Valley Road/Froom Ranch Way	EBL	250	AM	40	40	0
				PM	160	160	0
		EBR	250	AM	0	0	0
				PM	65	70	5

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Cumulative Conditions	Cumulative Plus Project Conditions	Change in Queue
		WBL	295	AM	60	65	5
				PM	125	140	15
		WBR	50	AM	0	0	0
				PM	50	50	0
		NBL	300	AM	#120	#120	0
				PM	#275	#275	0
		SBL	160	AM	#75	#75	0
				PM	125	125	0
8	Los Osos Valley Road/Auto Parkway (Project Driveway)	EBL	100	AM	-	60	-
				PM	-	85	-
		EBR	100	AM	-	15	-
				PM	-	30	-
		WBL	Trap Lane	AM	25	30	5
				PM	70	70	0
		WBR	175	AM	20		-
				PM	40		-
		NBL	200	AM	-	30	-
				PM	-	#55	-
		SBL	100	AM	30	40	10
				PM	50	50	0
		SBR	100	AM	-	15	-
				PM	-	20	-
9	Los Osos Valley Road/Calle Joaquin	EBL	260	AM	25	25	0
				PM	40	40	0
		EBR	260	AM	20	20	0
				PM	40	40	0
		WBL	100	AM	60	60	0
				PM	**185**	**185**	**0**
		NBL	130	AM	50	50	0
				PM	55	65	10
		NBR	130	AM	55	60	5
				PM	50	50	0
		SBL	120	AM	40	40	0
				PM	30	30	0
		SBR	120	AM	0	0	0
				PM	10	10	0
10	Los Osos Valley Road/US 101 SB Ramps	WBR	190	AM	65	125	60
				PM	**#190**	**#220**	**30**
		NBL	220	AM	#35	m33	-2
				PM	#70	#70	0
		SBR	120	AM	60	**140**	**80**
				PM	50	50	**0**
11		EBL	610	AM	#385	#405	20

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Cumulative Conditions	Cumulative Plus Project Conditions	Change in Queue
	Los Osos Valley Road/US 101 NB Ramps			PM	295	#300	6
		NBL	400	AM	85	80	-5
				PM	140	140	0
		SBR	133	AM	10	m5	-5
				PM	20	20	0
12	Los Osos Valley Road/S. Higuera Street	EBL	Trap Lane	AM	#395	#410	-5
				PM	#275	#295	20
		EBR	100	AM	40	40	0
				PM	60	60	0
		NBL	200	AM	60	60	0
				PM	**#300**	**#300**	0
		SBR	Trap Lane	AM	50	55	5
				PM	300	330	30
14	S. Higuera Street/Suburban Road	WBL	Trap Lane	AM	95	105	10
				PM	180	195	15
		SBL	170	AM	#155	#155	0
				PM	**#175**	**#185**	**10**
15	S. Higuera Street/Tank Farm Road	EBR	Trap Lane	AM	0	0	0
				PM	0	0	0
		WBL	Trap Lane	AM	150	155	5
				PM	#365	#350	-15
		WBR	250	AM	35	35	0
				PM	50	50	0
		NBL	140	AM	45	45	0
				PM	50	50	0
		NBR	100	AM	80	90	10
				PM	30	30	0
		SBL	165	AM	**#255**	**#300**	**45**
				PM	**#305**	**#255**	**0**
16	S. Higuera Street/Prado Road	EBL	300	AM	55	75	20
				PM	#65	#75	10
		EBR	300	AM	60	65	5
				PM	40	40	0
		WBL	120	AM	#85	#105	20
				PM	105	105	0
		WBR	200	AM	30	30	0
				PM	80	80	0
		NBL	300	AM	#205	#260	55
				PM	#275	#285	10
		NBR	120	AM	10	30	20
				PM	5	5	0
		SBL	300	AM	#245	#295	40
				PM	#120	#115	-5

ID	Study Intersections	Lane Group	Storage Length Per Lane (ft)	Peak Hour	Cumulative Conditions	Cumulative Plus Project Conditions	Change in Queue
		SBR	120	AM	10	35	25
				PM	10	10	0
18	Madonna Road/Oceanaire Drive	EBL	115	AM	40	40	0
				PM	#70	#70	0
		WBL	115	AM	#70	**#125**	55
				PM	**#255**	**#255**	0
		WBR	100	AM	**220**	**205**	-15
				PM	**#330**	**#560**	230
		NBR	50	AM	0	0	0
				PM	0	0	0
19	Madonna Road/Dalidio Drive	EBL	145	AM	45	50	5
				PM	#60	#60	0
		EBR	100	AM	**#420**	**#505**	**85**
				PM	**#290**	**#295**	**5**
		WBL	350	AM	#230	#200	-30
				PM	#295	#295	0
		NBL	150	AM	140	140	0
				PM	**#440**	**#440**	0
		NBR	150	AM	5	5	0
				PM	65	65	0
		SBR	50	AM	0	0	0
				PM	0	0	0
20	Madonna Road/US 101 SB Ramps/Madonna Inn	EBL	100	AM	50	55	5
				PM	60	60	0
		WBL	260	AM	130	175	45
				PM	m#200	m#200	0
		NBL	Trap Lane	AM	#210	200	-10
				PM	#340	#340	0
		NBR	275	AM	130	60	-70
				PM	45	45	0
		SBL	Trap Lane	AM	25	25	0
				PM	35	35	0
		SBR	100	AM	0	0	0
				PM	0	0	0
21	Madonna Road & US 101 NB Ramps	EBL	435	AM	180	145	-35
				PM	#305	#305	0
		NBL	185	AM	40	40	0
				PM	105	105	0

Notes:
Queue length rounded to nearest five feet. Queuing analysis is reported for signalized intersections only.
Bold: 95th percentile volume exceeds capacity.
m queue is metered by upstream intersection.
95th percentile queue exceeds capacity
Trap - denotes design where the thru-lane terminates in a turn-lane.

Westbound thru-lane (WBL); Westbound right-turn lane (WBR); Eastbound thru-lane (EBL); Northbound thru-lane (NBL); Northbound right-turn lane (NBR); Northbound trap (NBT); Southbound thru-lane (SBL); Southbound trap (SBT); Southbound right-turn lane (SBR)

As shown in **Table 3.1-94**, the addition of Project traffic would exacerbates 95th percentile turning movement queues that exceed lane capacity during a.m. or p.m. peak hours at the following intersections under Cumulative plus Project conditions:

- Los Osos Valley Road and Royal Way (NBL during p.m. peak hour)
- Los Osos Valley Road and Calle Joaquin (WBL during p.m. peak hour)
- Los Osos Valley Road and US 101 SB Ramps (SBR and WBR during p.m. peak hour)
- S Higuera Street and Suburban Street (SBL during p.m. peak hour)
- S Higuera Street and Tank Farm Road (SBL during a.m. peak hour)
- Madonna Road and Oceanaire Drive (WBL during a.m. peak hour and WBR during the p.m. hour)
- Madonna Road and Dalidio Drive (EBR during both the a.m. and the p.m. peak hours)

As shown in **Table 3.1-95**, under Cumulative (2035) conditions, following roadway segments are projected to exceed City's minimum automobile threshold:

- Los Osos Valley Road from Oceanaire Drive to Madonna Road operates at LOS F during a.m. peak hour and p.m. peak hour in the southbound direction
- Los Osos Valley Road from Madonna Road to Froom Ranch Way operates at LOS E in the northbound direction during p.m. peak hour
- Los Osos Valley Road from US 101 NB ramps to US 101 SB Ramps operates at LOS E in the southbound directions during p.m. peak hour
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS E during p.m. peak hour in northbound direction

As shown in **Table 3.1-96**, under Cumulative (2035) conditions, the Project would further degrade already exceeded LOS standards that exceed the City's minimum pedestrian LOS threshold, thus resulting in a potentially significant impact at the following locations:

- Los Osos Valley Road from Oceanaire Drive operates at LOS D during a.m. and p.m. peak hour in the southbound direction and operates at LOS E during p.m. peak hour in northbound direction.
- Los Osos Valley Road from Madonna Road to Froom Ranch Way operates at LOS F during a.m. peak hour in the northbound direction and operates at LOS D during p.m. peak hour in the northbound direction.
- Los Osos Valley Road from Froom Ranch Way to Calle Joaquin operates at LOS D during a.m. and p.m. peak hours in the southbound direction.

- Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps operates at LOS D in southbound direction during a.m. and p.m. peak hours and operates at LOS D in northbound direction during p.m. peak hour.
- Los Osos Valley Road from US 101 NB Ramps to South Higuera Street operates at LOS E during a.m. peak hour and operates at LOS D during p.m. peak hour in the southbound direction and operates at LOS D during p.m. peak hour in the northbound direction.
- South Higuera Street from Los Osos Valley Road to Tank Farm Road operates at LOS D during p.m. peak hours in the southbound direction.
- South Higuera Street from Tank Farm Road to Prado Road operates at LOS F during a.m. and p.m. peak hours in the southbound direction.
- Madonna Road from Los Osos Valley Road to Dalidio Drive operates at LOS F in eastbound direction during a.m. peak hour. In the westbound direction the segment is projected to operate at LOS F during a.m. peak hour and at LOS D during p.m. peak hour.

Due to the proximity of the Bob Jones Trail, which provides a low-stress route for pedestrians parallel to South Higuera between Los Osos Valley Road and Prado Road, the pedestrian impacts to segments of South Higuera Street are not considered to be contextually significant.

A Class I Path is planned to be installed along the west side of Madonna Road between Oceanaire and the US 101 SB Ramps intersection as a condition of the San Luis Ranch development and is expected to be in place for baseline Near Tern conditions. Considering the proximity of this facility and the availability of the Madonna frontage roads sidewalks as a low-stress alternative to Madonna Road, the pedestrian segment impacts along Madonna Road are not considered to be contextually significant.

As shown in **Table 3.1-97** and **Table 3.1-98**, under Cumulative plus Project conditions the Project would not cause minimum LOS standards to be exceeded that exceed City's minimum bicycle and transit LOS threshold, thus resulting in a potentially significant impact.

As shown in **Table 3.1-99** and **Table 3.1-100**, under Cumulative plus Project conditions the Project would not increase the density by 5% or more at the facility that would exceed Caltrans minimum LOS thresholds.

Detailed roadway segment analysis worksheets are included in **Appendix C**, detailed freeway analysis worksheets for mainline, merge and diverge worksheets are attached in **Appendix D**, and detailed Leisch method analysis worksheets for weave segments are attached in **Appendix E**.

Table 3.1-95: Cumulative Plus Project Segment LOS: Automobile Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	31.56	45.46	69.42%	B	32.50	45.46	71.5%	B
		NB	D	28.63	45.45	62.99%	C	26.68	45.45	58.7%	C
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	**11.23**	**42.64**	**26.34%**	**F**	**7.19**	**42.64**	**16.9%**	**F**
		NB	D	23.46	51.37	45.67%	C	22.72	45.68	49.7%	D
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	26.80	44.82	59.79%	C	19.46	44.83	43.4%	D
		NB	D	18.13	44.83	40.44%	D	**15.47**	**44.82**	**34.5%**	**E**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	35.04	44.80	78.21%	B	31.51	44.80	70.3%	B
		NB	D	31.74	45.22	70.19%	B	26.27	45.22	58.1%	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	20.68	45.33	45.62%	D	**16.93**	**45.33**	**37.3%**	**E**
		NB	D	17.73	40.66	43.61%	D	25.07	45.36	55.3%	C
6	Los Osos Valley Road from US 101 NB Ramps to South Higuera Street	SB	D	19.46	40.64	47.88%	D	20.17	40.78	49.5%	D
		NB	D	27.12	41.19	65.84%	C	31.65	45.77	69.2%	B
7	South Higuera Street from City Limit south to US 101/Clover	SB	D	44.35	45.72	97.00%	A	43.12	45.72	94.3%	A
		NB	D	40.06	45.73	87.60%	A	42.50	45.73	92.9%	A

ID	Roadway Segment	Direction	LOS Threshold	AM Peak				PM Peak			
				Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS	Travel Speed (mph)	Base Free-Flow Speed BFFS (mph)	Travel Speed/BFFS (%)	LOS
	Ridge Lane (No Ped or Transit LOS)										
8	South Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	22.92	45.33	50.56%	C	18.01	45.34	39.7%	E
		NB	D	19.65	45.68	43.02%	D	**14.70**	**45.69**	**32.2%**	**E**
9	South Higuera Street from Tank Farm Road to Prado Road	SB	D	32.86	45.21	72.68%	B	24.59	45.23	54.4%	C
		NB	D	27.88	45.21	61.67%	C	23.14	45.24	51.1%	C
10	Tank Farm Road from South Higuera Street to Broad Street (No Ped or Transit LOS)	EB	D	33.97	43.15	78.73%	B	34.28	43.15	79.4%	B
		WB	D	33.35	42.40	78.66%	B	34.74	42.38	82.0%	A
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	21.69	38.92	55.73%	C	22.39	39.14	57.2%	C
		WB	D	21.03	37.84	55.58%	C	21.31	39.15	54.4%	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	31.49	41.09	76.64%	B	29.30	41.09	71.3%	B
		WB	D	30.15	41.08	73.39%	B	27.48	41.08	66.9%	C
13	Commercial Collector A from Los Osos Valley Road to Collector B	EB	D	32.93	39.37	83.64%	A	32.92	39.37	83.6%	A
		WB	D	30.25	39.37	76.84%	B	29.82	39.37	75.7%	B

Notes:
Bold indicates unacceptable operations.

Table 3.1-96: Cumulative Plus Project Segment LOS: Pedestrian Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	C	**3.78**	**D**	**3.74**	**D**
		NB	C	3.36	C	**4.26**	**E**
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	C	3.49	C	3.38	C
		NB	C	2.84	C	3.23	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	C	3.36	C	3.48	C
		NB	C	**3.17**	**F**	**3.63**	**D**
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	C	**3.58**	**D**	**3.77**	**D**
		NB	C	3.37	C	3.48	C
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	C	**3.88**	**D**	**3.61**	**D**
		NB	C	3.37	C	**3.91**	**D**
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	C	**4.66**	**E**	**3.91**	**D**
		NB	C	**3.64**	**D**	3.23	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	C	3.19	C	**3.84**	**D**
		NB	C	2.94	C	2.90	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	C	**3.57**	**F**	**4.31**	**F**
		NB	C	2.71	C	3.44	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	C	**4.36**	**F**	3.04	C
		WB	C	**3.73**	**F**	**3.81**	**D**
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	C	2.38	C	2.97	C
		WB	C	3.14	C	3.11	C
13	Commercial Collector A from Los Osos Valley Road to Collector B	EB	C	2.78	C	2.85	C
		WB	C	2.19	B	2.51	C

Notes:
Bold indicates unacceptable operations.

Table 3.1-97: Cumulative Plus Project Segment LOS: Bicycle Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.07	B	2.05	B
		NB	D	1.64	A	1.93	A
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.38	C	2.32	C
		NB	D	1.58	A	1.84	A
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	2.65	C	2.66	C
		NB	D	1.47	A	1.83	A
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	2.57	C	2.69	C
		NB	D	1.86	A	2.07	B
5	Los Osos Valley Road from US 101 SB Ramps to US 101 NB Ramps	SB	D	2.87	C	2.85	C
		NB	D	2.55	C	2.99	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	2.44	C	2.41	C
		NB	D	1.85	A	1.97	A
7	S. Higuera Street from City Limit south to US 101/Clover Ridge Ln (No Ped or Transit LOS)	SB	D	1.63	A	1.88	A
		NB	D	1.70	A	1.48	A
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	2.55	C	2.92	C
		NB	D	2.93	C	2.86	C
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	2.53	C	2.73	C
		NB	D	2.13	B	2.44	C
10	Tank Farm Road from S. Higuera Street to Broad Street (No Ped or Transit LOS)	EB	D	2.83	C	2.67	C
		WB	D	2.94	C	2.97	C
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.11	C	2.97	C
		WB	D	2.22	B	2.44	C
12	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	EB	D	0.80	A	0.93	A
		WB	D	1.42	A	1.46	A

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
13	Commercial Collector A from Los Osos Valley Road to Collector B	EB	D	0.48	A	2.50	C
		WB	D	0.93	A	2.59	C

Table 3.1-98: Cumulative Plus Project Segment LOS: Transit Analysis

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
1	Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive	SB	D	2.93	C	2.92	C
		NB	D	1.77	A	2.05	B
2	Los Osos Valley Road from Oceanaire Drive to Madonna Road	SB	D	2.57	C	2.57	C
		NB	D	2.80	C	2.90	C
3	Los Osos Valley Road from Madonna Road to Froom Ranch Way	SB	D	3.55	D	3.76	D
		NB	D	2.05	B	2.15	B
4	Los Osos Valley Road from Froom Ranch Way to Calle Joaquin	SB	D	3.10	C	3.22	C
		NB	D	3.25	C	3.44	C
6	Los Osos Valley Road from US 101 NB Ramps to S. Higuera Street	SB	D	4.08	D	3.58	D
		NB	D	3.63	D	3.32	C
8	S. Higuera Street from Los Osos Valley Road to Tank Farm Road	SB	D	4.13	D	4.62	D
		NB	D	3.21	C	4.06	D
9	S. Higuera Street from Tank Farm Road to Prado Road	SB	D	3.58	D	4.03	D
		NB	D	3.30	C	4.27	D
11	Madonna Road from Los Osos Valley Road to Dalidio Drive	EB	D	3.35	C	3.21	C
		WB	D	3.33	C	3.31	C
12		EB	D	0.29	A	0.39	A

ID	Roadway Segment	Direction	LOS Threshold	AM Peak		PM Peak	
				Segment Score	LOS	Segment Score	LOS
	Froom Ranch Way from Los Osos Valley Road to Dalidio Drive	WB	D	0.92	A	1.10	A
13	Commercial Collector A from Los Osos Valley Road to Collector B	EB	D	0.65	A	0.66	A
		WB	D	0.64	A	0.67	A

Notes:
Segments with no transit stops are excluded from the analysis.

Table 3.1-99: Cumulative Plus Project Segment LOS: Freeway Main Line, Ramps & Weaving Section Analysis

#	Interchange Location	Target LOS	Segment Type	Lanes	AM Peal Hour			PM Peal Hour		
					Volume	Density (pc/mi/ln)	LOS	Volume	Density (pc/mi/ln)	LOS
US 101 Northbound										
1	US 101 NB, south of S Higuera Street	C	Freeway	2	2,806	15.9	C	2,858	16.2	B
2	US 101 NB, south of Los Osos Valley Road	C	Freeway	2	3,123	17.7	B	2,400	13.6	C
3	US 101 NB Los Osos Valley Road Off Ramp	C	Diverge	1	786	20.1	C	700	15.6	B
4	US 101 NB Los Osos Valley Road On Ramp	C	Merge	1	186	20.2	B	467	17.4	B
5	US 101 NB, north of Prado Road	C	Freeway	2	2,786	15.8	B	2,683	15.2	B
6	US 101 NB Prado Road Off Ramp	C	Diverge	1	605	17.9	B	202	16.9	B
7	US 101 NB Prado Road On Ramp	C	Merge	1	436	19.7	C	793	21.4	C
8	US 101 NB, south of Madonna Road	C	Freeway	4	3,423	14.5	B	3,727	15.8	B
9	US 101 NB, Madonna Road Off Ramp	C	Diverge	1	228	15.2	B	231	16.6	B
US 101 Southbound										
10	US 101 SB, north of Madonna Road	C	Freeway	2	2,372	20.1	C	3,526	**32.0**	**D**
11	US 101 SB Madonna Road On Ramp	C	Merge	1	190	24.6	C	292	**39.6**	**E**
12	US 101 SB, north of Prado Road	C	Freeway	2	2,205	18.7	C	3,586	**32.8**	**D**
13	US 101, Prado Road Off Ramp	C	Diverge	1	640	22.8	C	375	**36.6**	**D**
14	US 101, Prado Road On Ramp	C	Merge	1	114	22.2	C	173	**38.8**	**E**
15	US 101 SB, south of Los Osos Valley Road	C	Freeway	2	1,466	12.4	B	2,660	22.6	C
16	US 101 SB Los Osos Valley Road Off Ramp	C	Diverge	1	706	15.2	B	398	27.2	C
17	US 101 SB Los Osos Valley Road On Ramp	C	Merge	1	531	18.8	B	743	**33.8**	**D**
18	US 101 SB, north of S Higuera Street	C	Freeway	2	2,619	22.2	C	4,224	**44.1**	**E**

Notes:
Bold indicates unacceptable operations.

Table 3.1-100: Cumulative Plus Project Weaving Segment Level of Service: Leisch Method

Interchange Location	Target LOS	Segment Type	No. of Lanes	Length	AM Peak		PM Peak	
					Total Volume	LOS	Total Volume	LOS
US 101 Northbound								
Between Los Osos Valley Road and Prado Road	C	Weave	3	4,380	3,911	A	3,350	A
Between Prado Road and Madonna Road	C	Weave	4	940	4,104	C	4,751	C
US 101 Southbound								
Between Madonna Road and Prado Road	C	Weave	2	910	3,219	C	4,275	C
Between Madonna Road and Los Osos Valley Road	C	Weave	3	1,330	3,032	B	4,252	A

3.3.9.4 Cumulative plus Project Conditions Impacts and Mitigation Measures

This section presents the project-related impacts and mitigation measures at the study intersections and segments under Cumulative (2035) plus Project Conditions, based on the significance thresholds identified previously.

Table 3.1-101: Cumulative Impacts & Mitigations

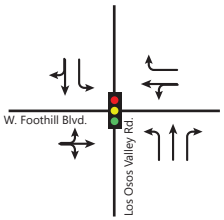
Location	Trigger	Mode	Impact	Mitigation Measure
Cumulative Plus Project Impacts and Mitigation Measures				
Intersection #1: Los Osos Valley Road & Foothill Boulevard	Post Phase 4	Auto	The proposed project degrades intersection LOS for automobiles that fails without the proposed Project and would increase v/c ratio by 0.01, during the p.m. peak hour	Restripe the northbound approach to provide one left-turn, two through and one right-turn lane. Additional minor traffic signal, striping and signage modifications required. Project is responsible for a fair-share contribution towards improvements. *Requires County approval and coordination.*
Intersection #5: Los Osos Valley Road & Royal Way	Post Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the northbound left-turn lane queue that would exceed capacity in the p.m. peak hour	Restripe northbound left turn pocket to extend storage length to 150 feet and optimize corridor signal timings along Los Osos Valley Road. Project is responsible for a fair-share contribution towards improvements.
Intersection #6: Los Osos Valley Road & Madonna Road	Post Phase 4	Pedestrian	Addition of project traffic will exacerbate unacceptable pedestrian LOS crossing Los Osos Valley Road during the p.m. peak hour	Implement Pedestrian Lead Intervals (LPI) for each pedestrian crossing phase at this intersection.
Intersection #9: Los Osos Valley Road & Calle Joaquin	Post Phase 4	Pedestrian	Addition of project traffic will exacerbate unacceptable pedestrian LOS during the p.m. peak hour that reflects the lengthy crossing distance across Los Osos Valley Road and 45 mph travel speeds by vehicles traveling on Los Osos Valley Road.	Implement Pedestrian Lead Intervals (LPI) for each pedestrian crossing phase at this intersection.
Intersection #10: Los Osos Valley Road & US 101 SB Ramps	Post Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the existing southbound right queue in the p.m. peak hour.	Optimize signal coordination between LOVR/Calle Joaquin and LOVR/US 101 SB Ramps intersections to manage SB right-turn queuing. *Requires Caltrans approval and coordination.*

Location	Trigger	Mode	Impact	Mitigation Measure
Intersection #15: S Higuera Street & Tank Farm Road	Post Phase 4	Pedestrian Auto (Queue)	Addition of project traffic will exacerbate unacceptable pedestrian LOS during the p.m. peak hour that reflects the crossing across S. Higuera Street. Addition of project traffic will exacerbate the southbound left queue that would exceed capacity in the a.m. peak hour.	Implement Pedestrian Lead Intervals (LPI) for each pedestrian crossing phase at this intersection. Extend the southbound left turn pocket to 300 feet. Project is responsible for a fair-share contribution towards improvements.
Intersection #18: Madonna Road & Oceanaire Drive	Post Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the westbound left queue in a.m. peak hour and westbound right queue in the p.m. peak hour	Extend westbound right-turn pocket storage to 200 feet and optimize signal timings. May require replacement of existing culvert on Madonna west of Oceanaire. Project is responsible for a fair-share contribution towards improvements.
Intersection #19: Madonna Road & Dalidio Drive	Post Phase 4	Auto (Queue)	Addition of project traffic will exacerbate the eastbound right queue during both the a.m. and p.m. peak hour	Modify traffic signal to provide eastbound right-turn overlap phase concurrent with northbound left-turn phase. Project is responsible for a fair-share contribution towards improvements.
Roadway Segment #1: Los Osos Valley Road from Prefumo Canyon Road to Oceanaire Drive.	Post Phase 4	Pedestrian	Roadway segments on Los Osos Valley Road operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation
Roadway Segment #2: Los Osos Valley Road from Oceanaire Drive to Madonna Road	Post Phase 4	Pedestrian	Roadway segment operates at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation

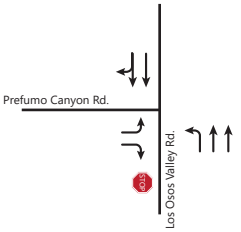
Location	Trigger	Mode	Impact	Mitigation Measure
Roadway Segments #3, #4, #5 and #6: Los Osos Valley Road from Madonna Road to S. Higuera Street	Post Phase 4	Pedestrian	Roadway segments operate at an unacceptable segment LOS for pedestrians, and Project traffic would exacerbate the unacceptable pedestrian LOS.	Existing Plus Project Mitigation

Cumulative (2035) Conditions Lane Geometries and Traffic Controls

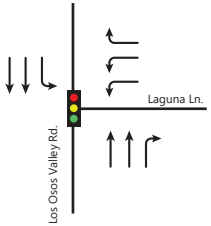
Intersection #1
W. Foothill Blvd. / Los Osos Valley Rd.



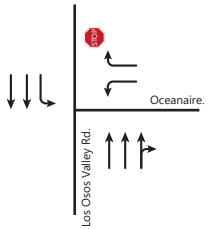
Intersection #2
Los Osos Valley Rd./Prefumo Canyon Rd.



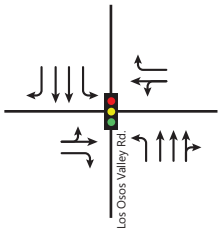
Intersection #3
Los Osos Valley Rd. / Laguna Ln.



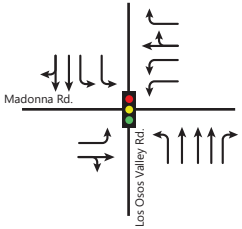
Intersection #4
Los Osos Valley Rd./Oceanaire Dr.



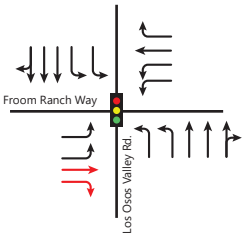
Intersection #5
Los Osos Valley Rd./Royal Way



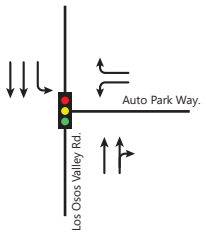
Intersection #6
Los Osos Valley Rd./Madonna Rd.



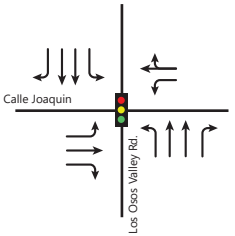
Intersection #7
Los Osos Valley Rd./Froom Ranch Way



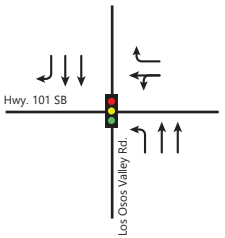
Intersection #8
Los Osos Valley Rd./Auto Park Way



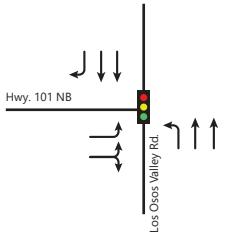
Intersection #9
Los Osos Valley Rd./Calle Joaquin



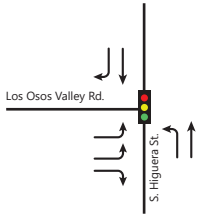
Intersection #10
Los Osos Valley Rd. / Hwy. 101 SB



Intersection #11
Los Osos Valley Rd. / Hwy. 101 NB



Intersection #12
S. Higuera St. / Los Osos Valley Rd.



LEGEND

- X — Study Intersection ID
- X — Future Intersection
- → Proposed Geometry
- Widen to 4 Lanes
- Future Roadway
- City Limits
- Roundabout
- Traffic Signal
- STOP Stop Sign

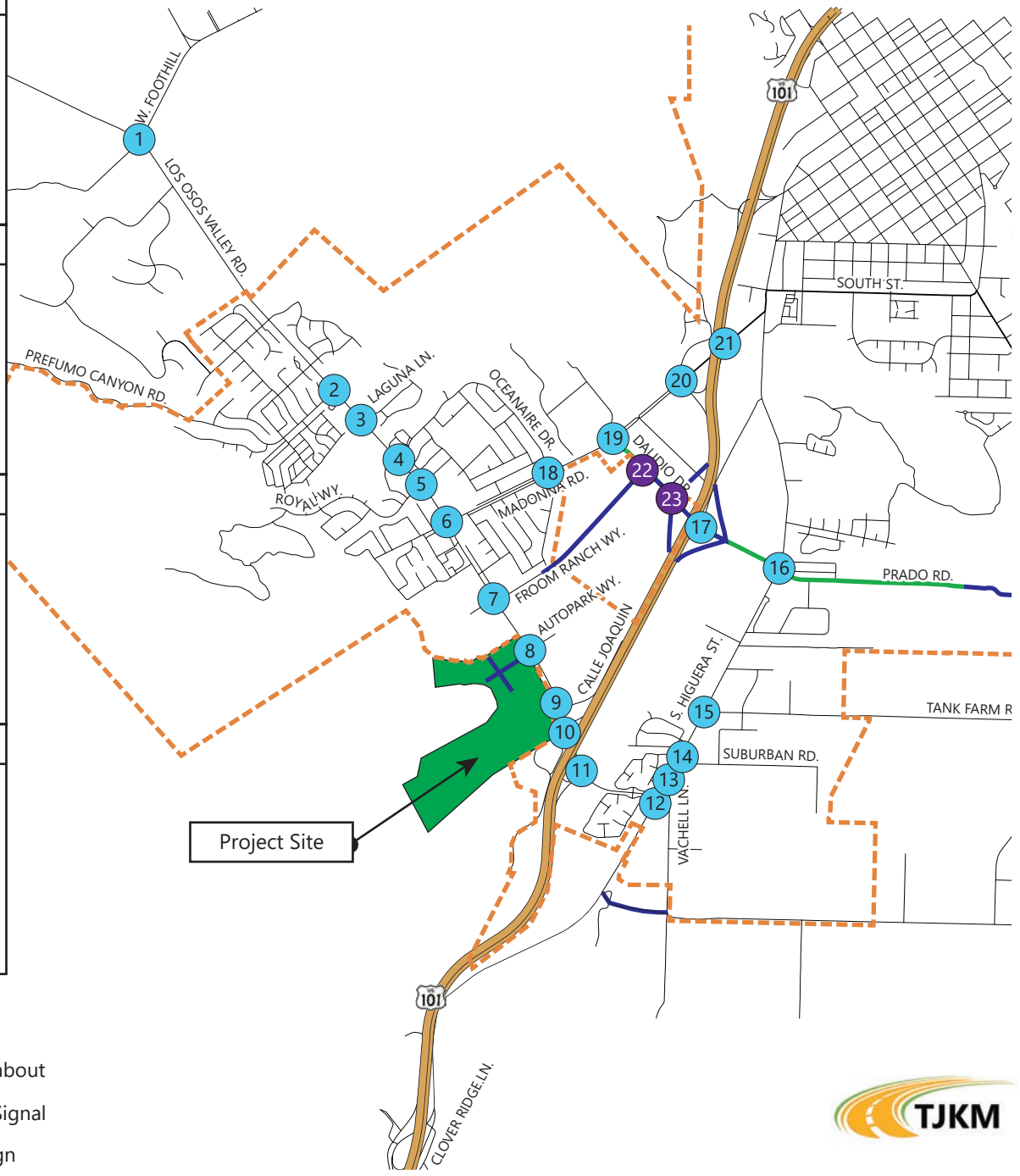


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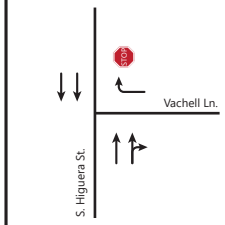
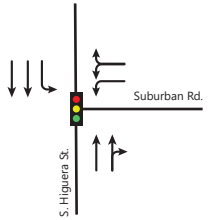
Figure 3.1-24

Cumulative (2035) Conditions Lane Geometries and Traffic Controls

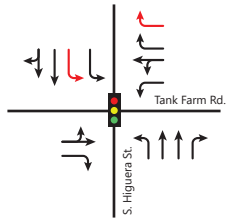
Intersection #13
S. Higuera St. / Vachell Ln.



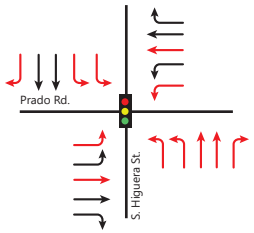
Intersection #14
S. Higuera St. / Suburban Rd.



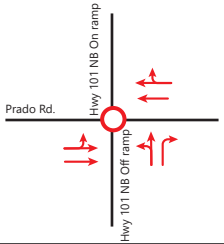
Intersection #15
S. Higuera St. / Tank Farm Rd.



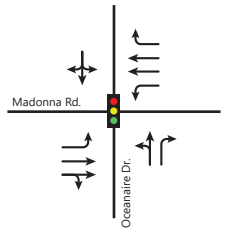
Intersection #16
S. Higuera St. / Prado Rd.



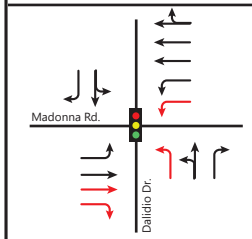
Intersection #17
Prado Rd. / Hwy 101 NB / Elks Ln.



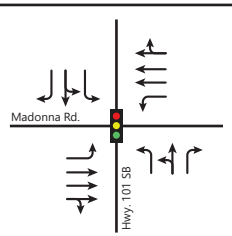
Intersection #18
Oceanaire Dr. / Madonna Rd.



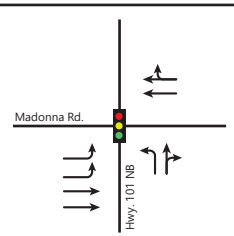
Intersection #19
Dalidio Dr. / Madonna Rd.



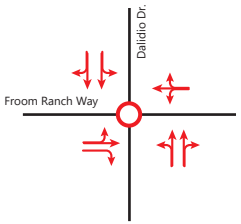
Intersection #20
Hwy. 101 SB / Madonna Rd.



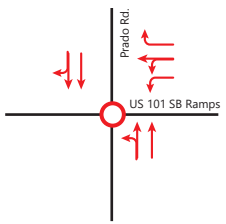
Intersection #21
Hwy. 101 NB / Madonna Rd.

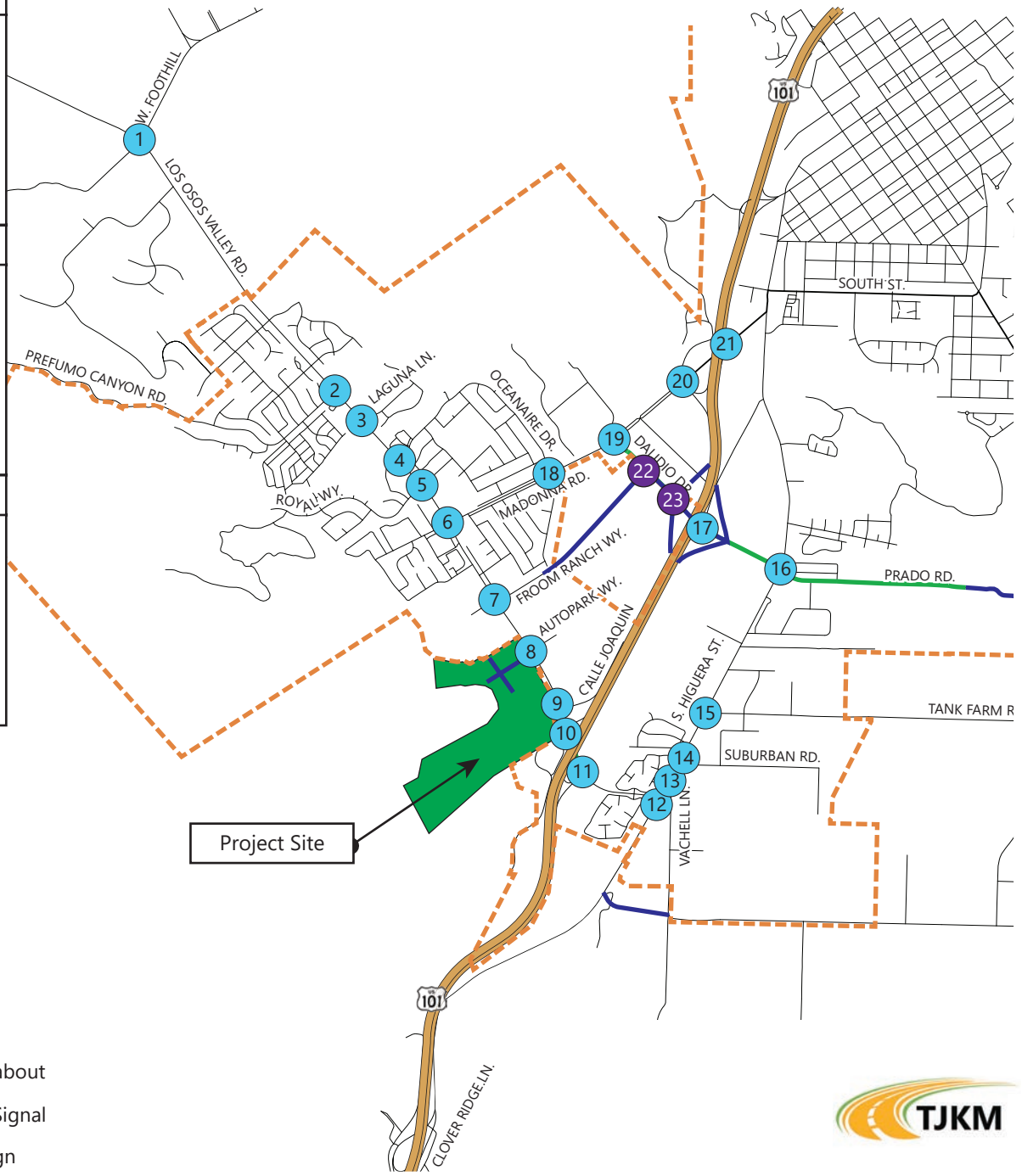


Intersection #22
Dalidio Dr. / Froom Ranch Way



Intersection #23
Prado Rd. / Hwy. 101 SB





LEGEND

- X — Study Intersection ID
- X — Future Intersection
- Proposed Geometry
- Widen to 4 Lanes
- Future Roadway
- City Limits
- Roundabout
- Traffic Signal
- Stop Sign

TJKM

Figure 3.1-24

Cumulative (2035) Conditions Turning Movement Volumes

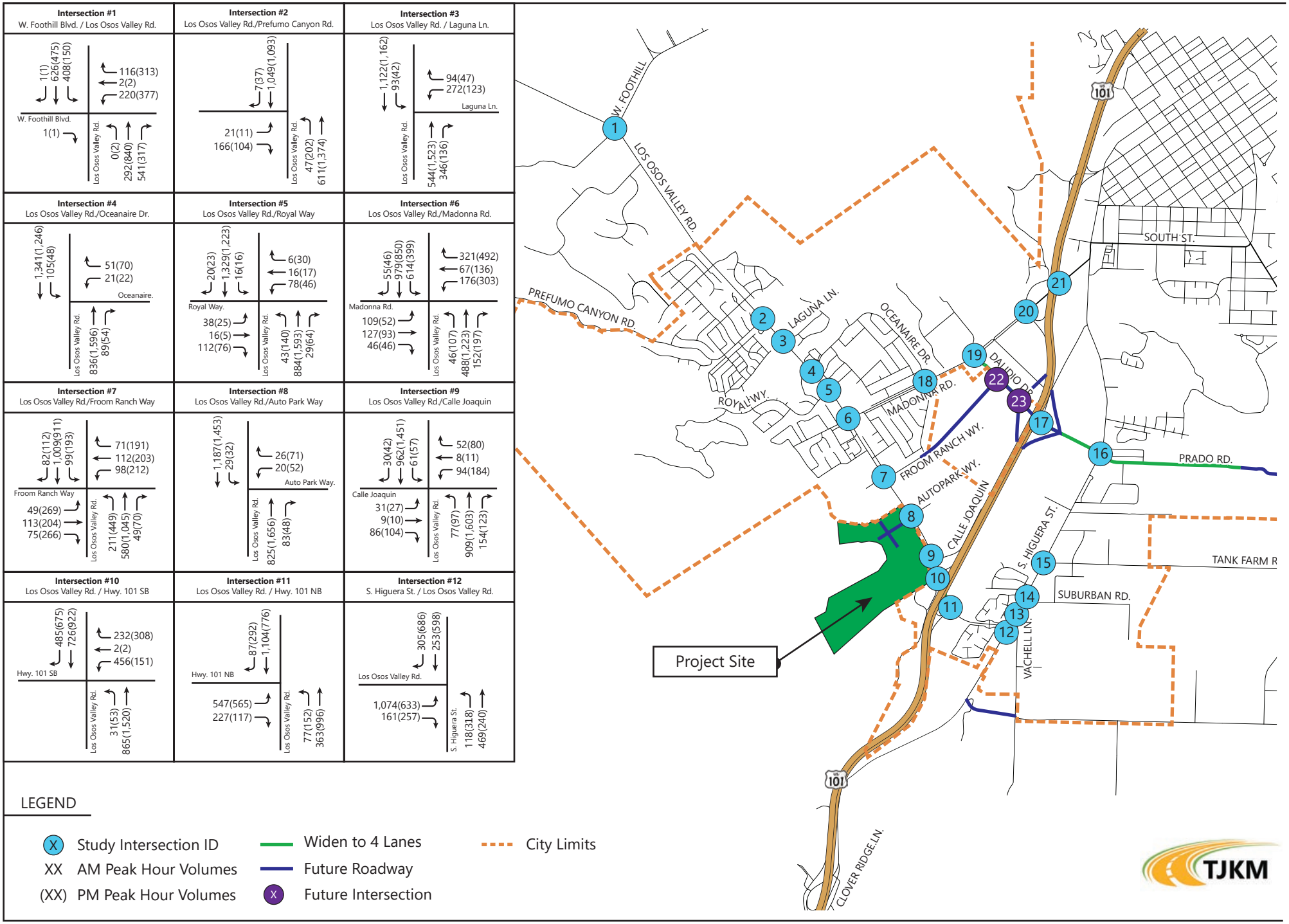
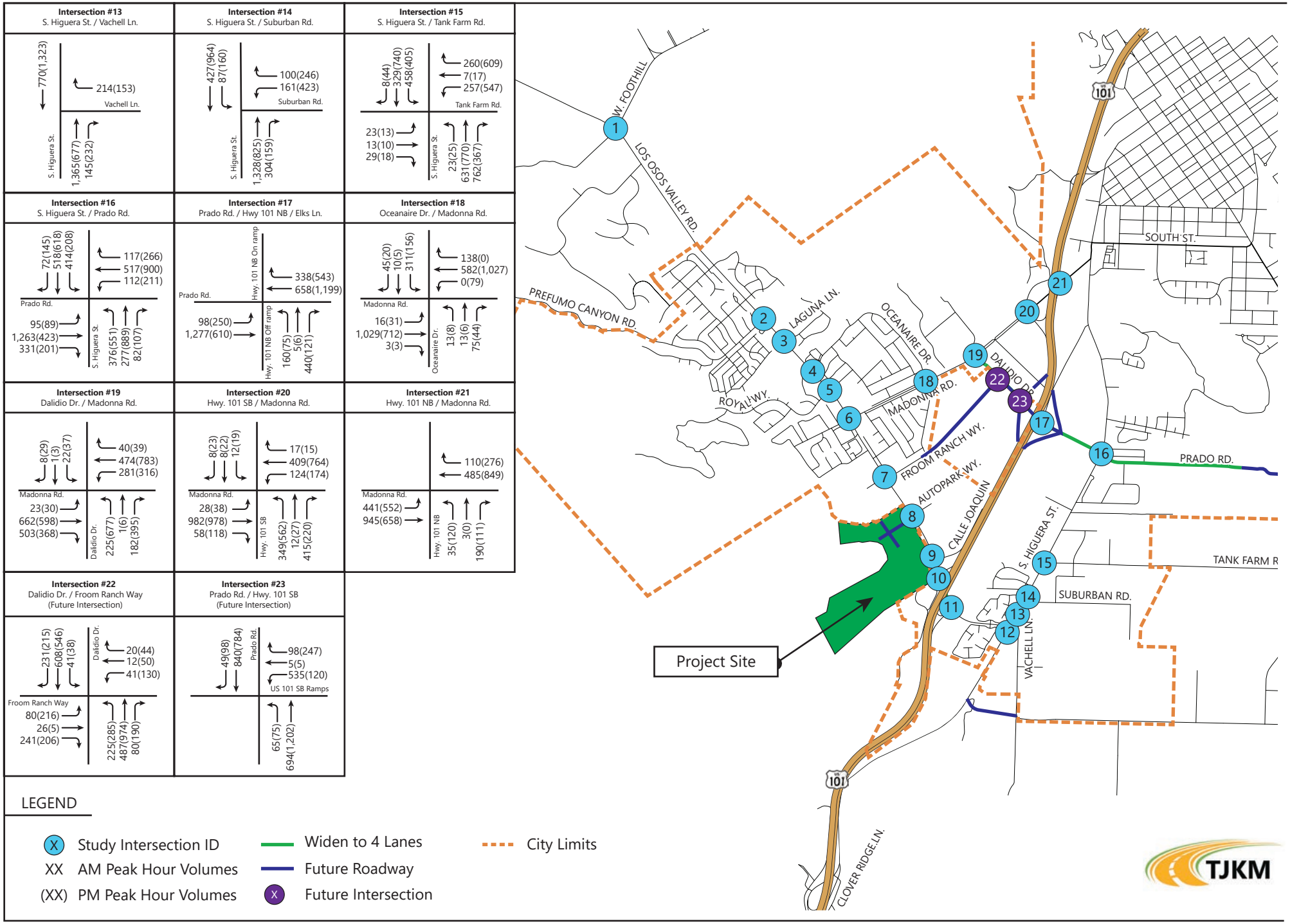


Figure 3.1-25

Cumulative (2035) Conditions Turning Movement Volumes



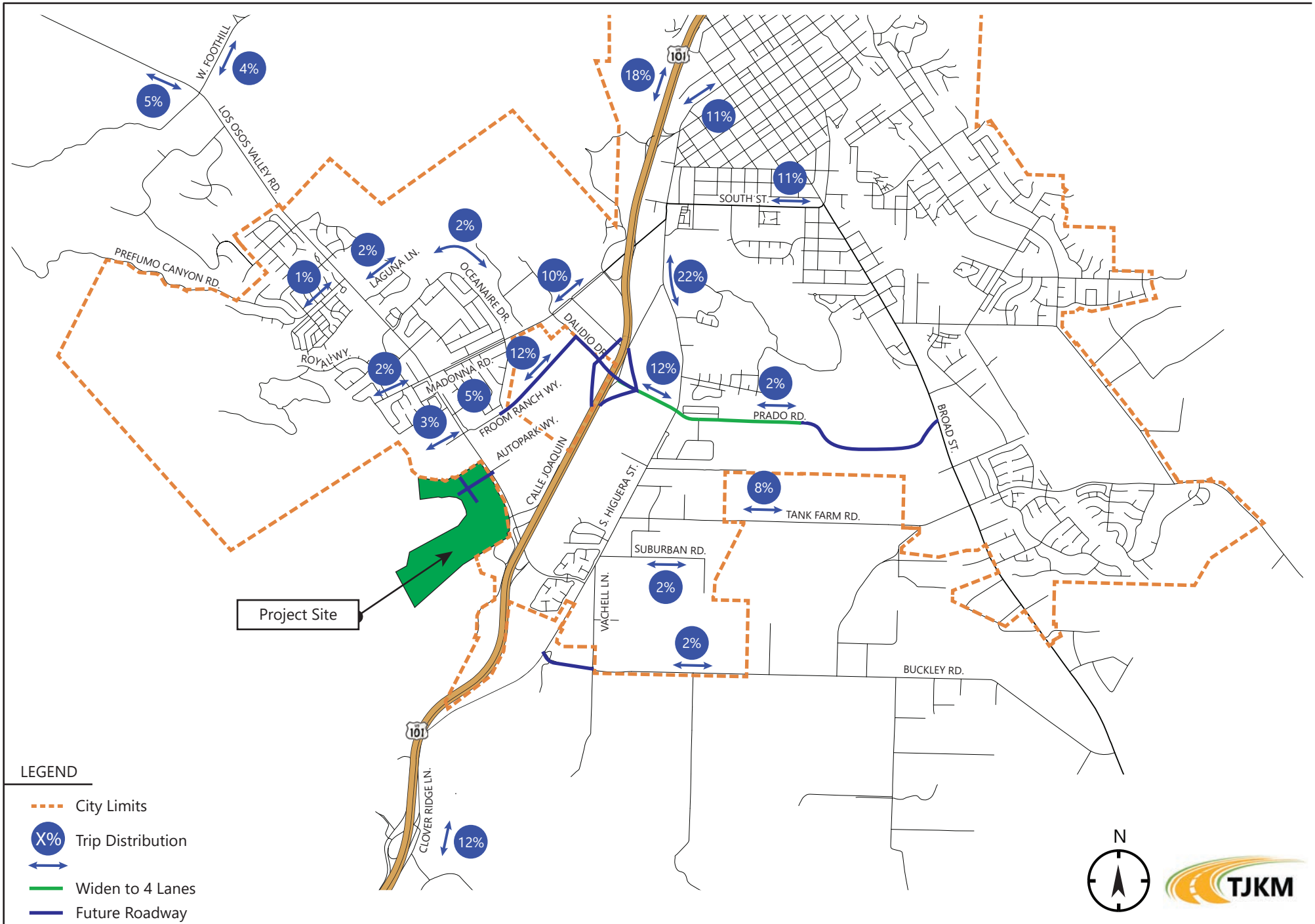
LEGEND

- (X) Study Intersection ID
- XX AM Peak Hour Volumes
- (XX) PM Peak Hour Volumes
- Widen to 4 Lanes
- Future Roadway
- (X) Future Intersection
- City Limits

TJKM

Figure 3.1-25

Cumulative plus Project Trip Distribution



292-003

Figure 3.1-26

Cumulative (2035) plus Project Conditions Trip Assignment

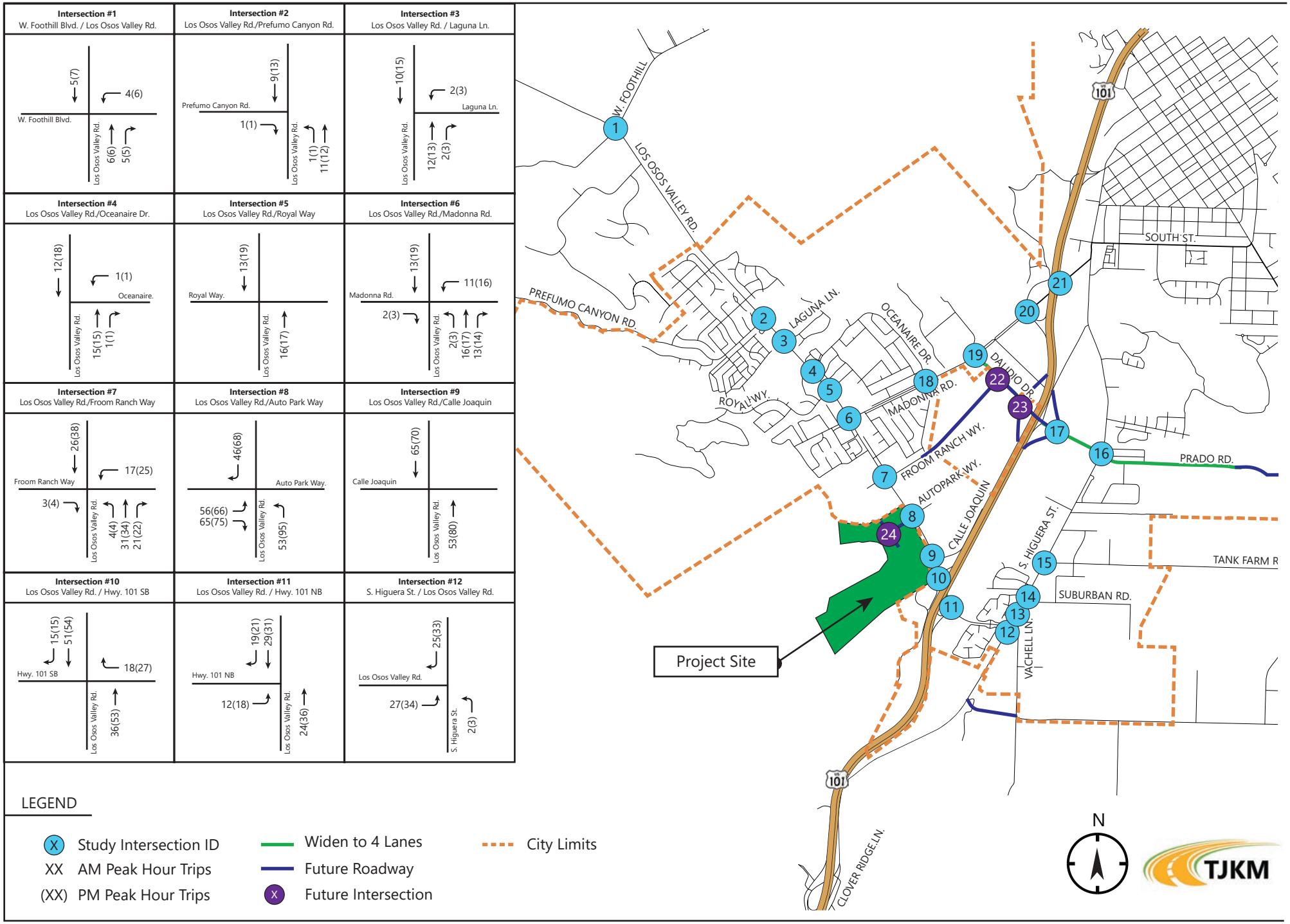


Figure 3.1-27

Cumulative (2035) plus Project Conditions Trip Assignment

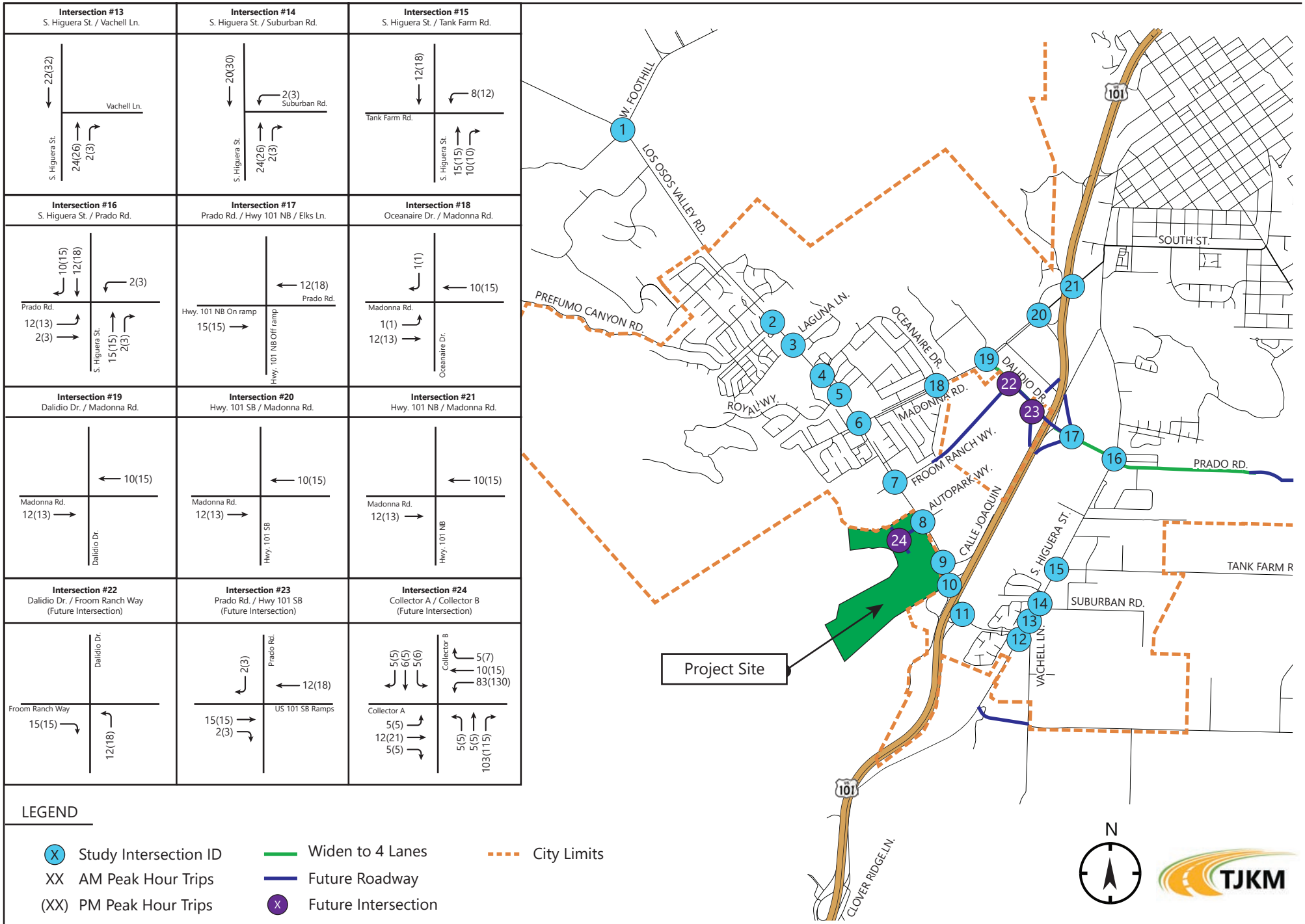
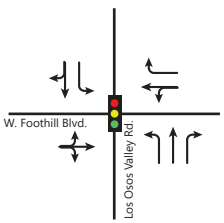


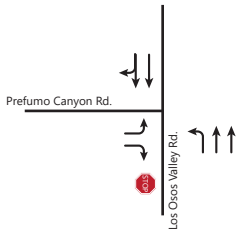
Figure 3.1-27

Cumulative (2035) plus Project Lane Geometries and Traffic Controls

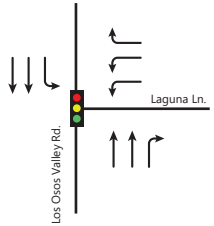
Intersection #1
W. Foothill Blvd. / Los Osos Valley Rd.



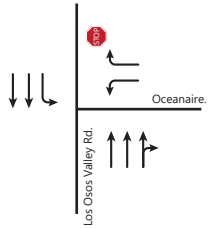
Intersection #2
Los Osos Valley Rd./Prefumo Canyon Rd.



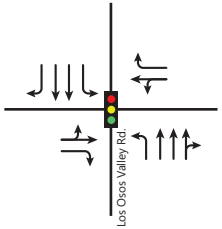
Intersection #3
Los Osos Valley Rd. / Laguna Ln.



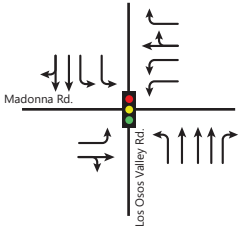
Intersection #4
Los Osos Valley Rd./Oceanaire Dr.



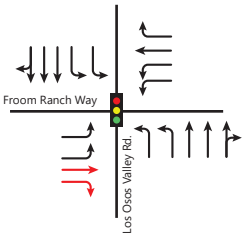
Intersection #5
Los Osos Valley Rd./Royal Way



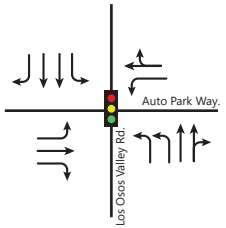
Intersection #6
Los Osos Valley Rd./Madonna Rd.



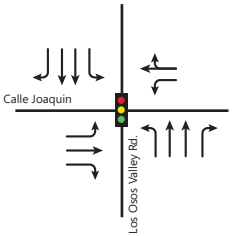
Intersection #7
Los Osos Valley Rd./Froom Ranch Way



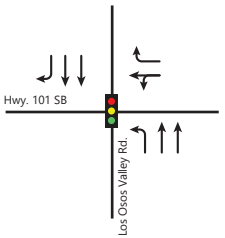
Intersection #8
Los Osos Valley Rd./Auto Park Way



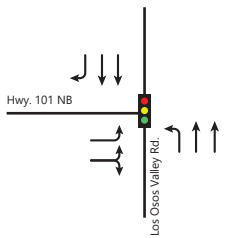
Intersection #9
Los Osos Valley Rd./Calle Joaquin



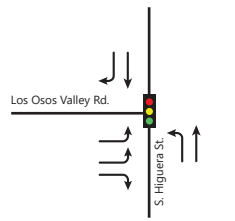
Intersection #10
Los Osos Valley Rd. / Hwy. 101 SB



Intersection #11
Los Osos Valley Rd. / Hwy. 101 NB



Intersection #12
S. Higuera St. / Los Osos Valley Rd.



LEGEND

- X — Study Intersection ID
- X — Future Intersection
- → Proposed Geometry
- Widen to 4 Lanes
- Future Roadway
- City Limits
- Roundabout
- Traffic Signal
- STOP Stop Sign

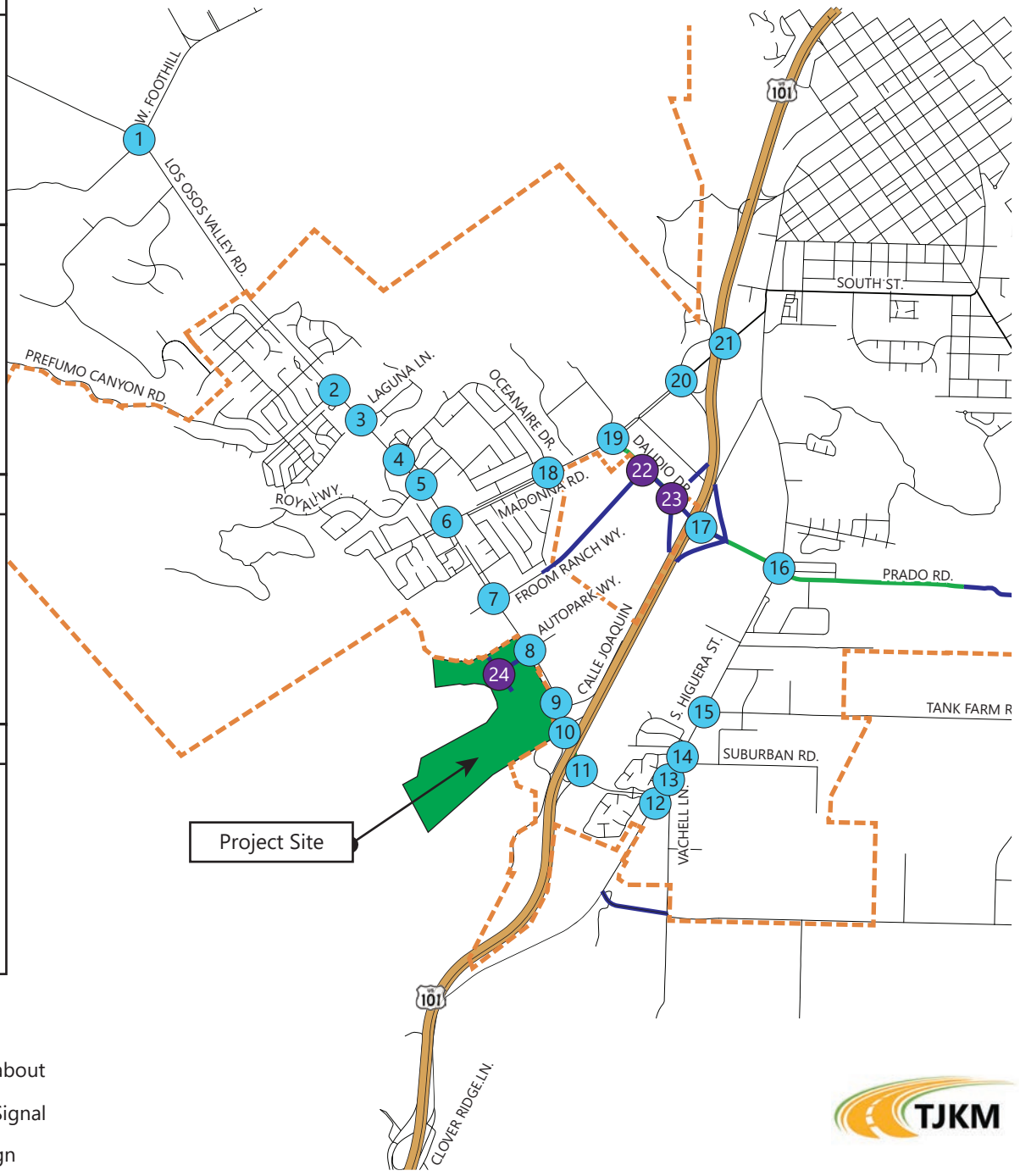


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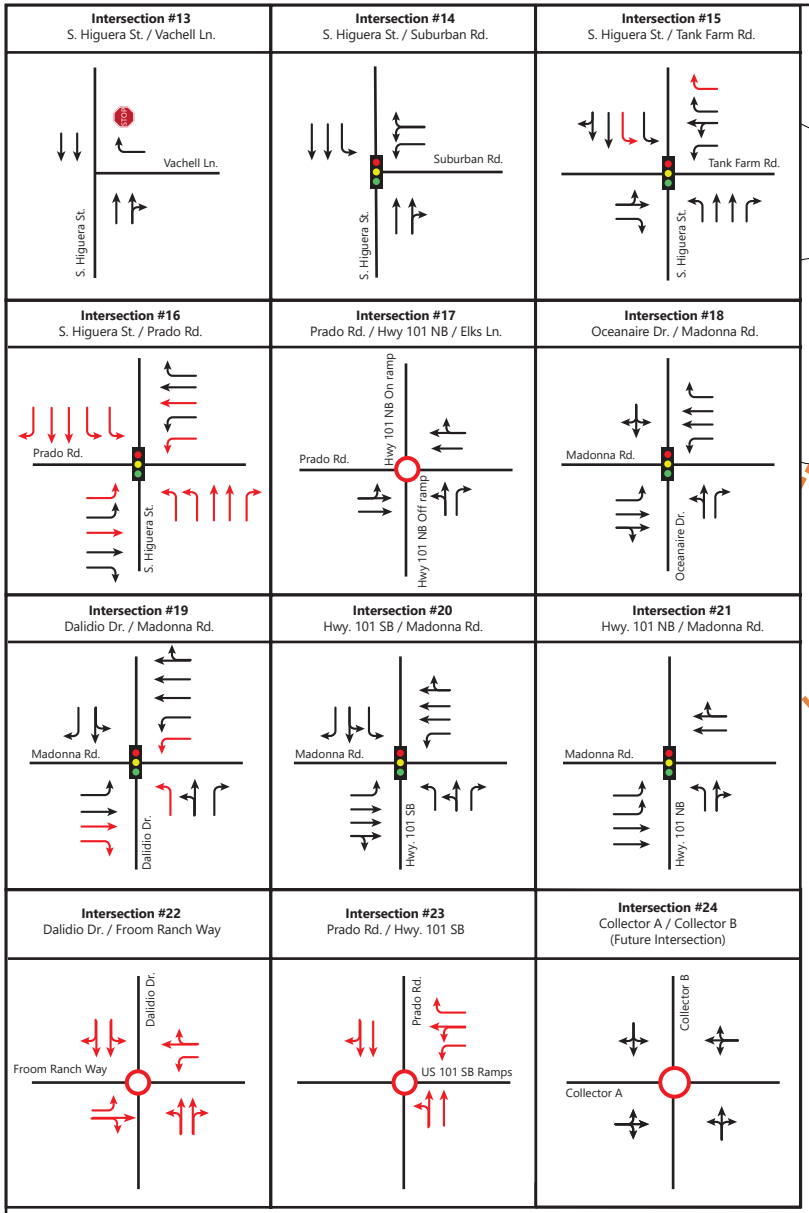
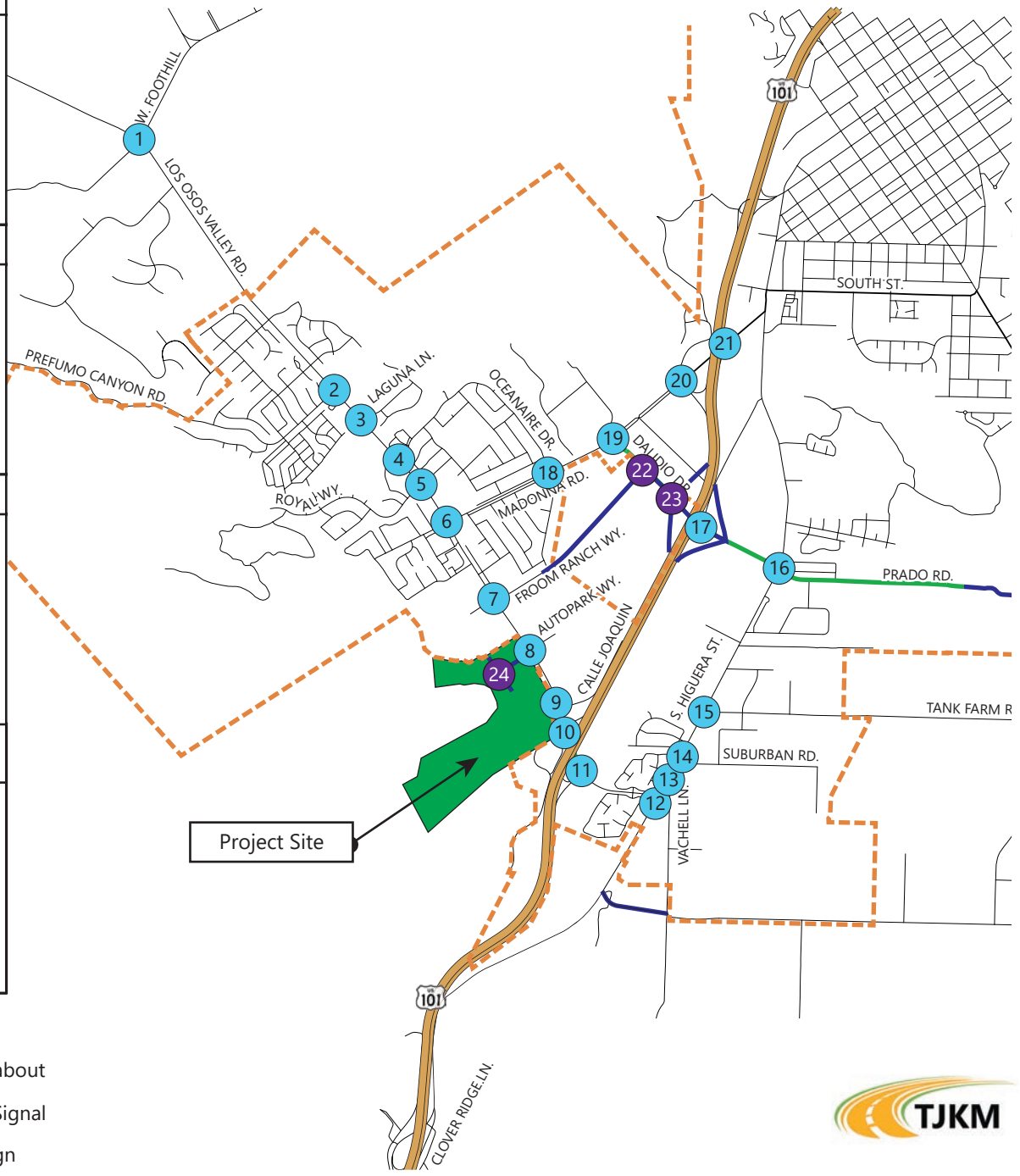
Figure 3.1-28

Cumulative (2035) plus Project Lane Geometries and Traffic Controls





LEGEND

- X — Study Intersection ID
- X — Future Intersection
- → Proposed Geometry
- Widen to 4 Lanes
- Future Roadway
- City Limits
- Roundabout
- Traffic Signal
- STOP Stop Sign

Figure 3.1-28

Cumulative (2035) Plus Project Turning Movement Volumes

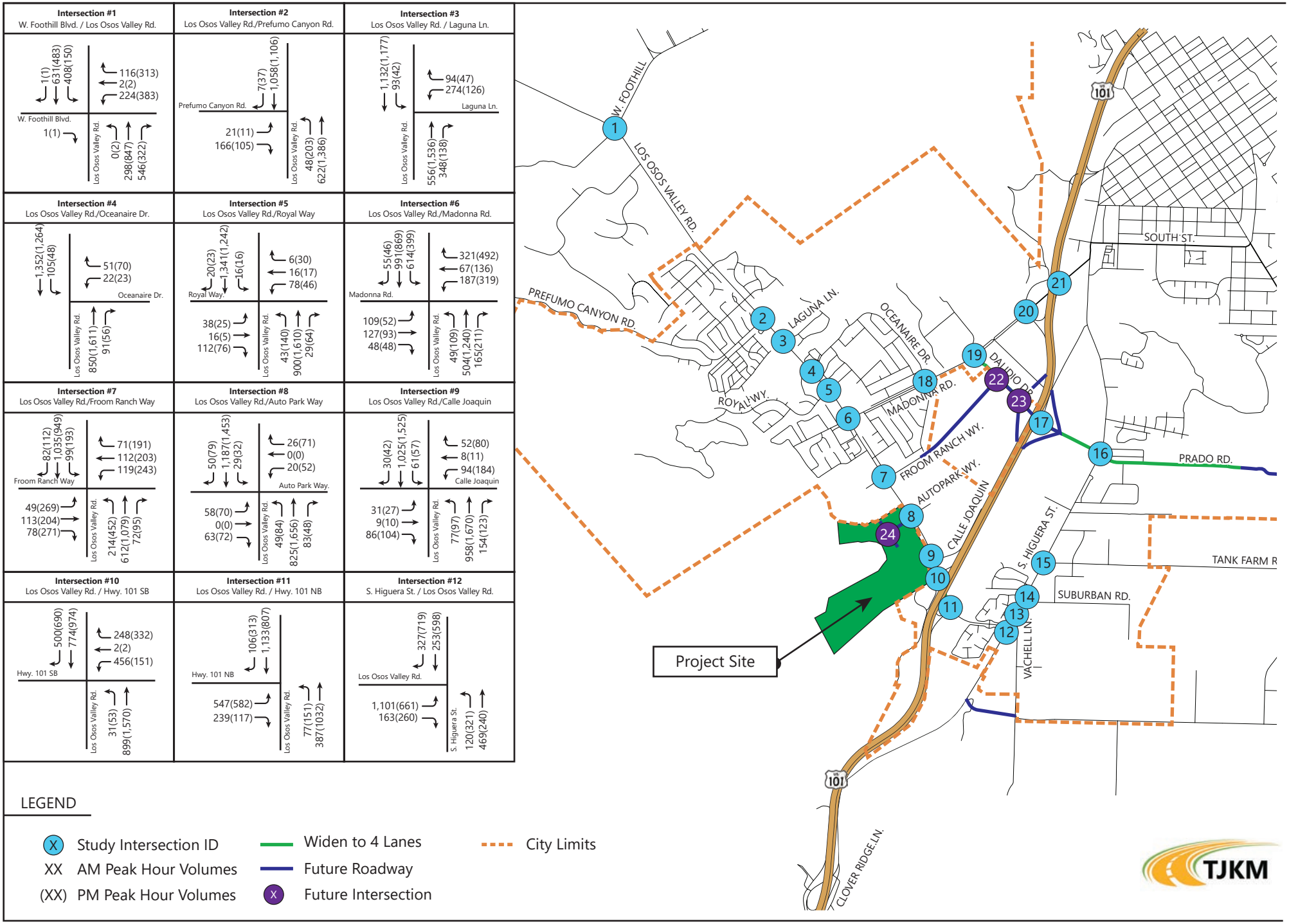
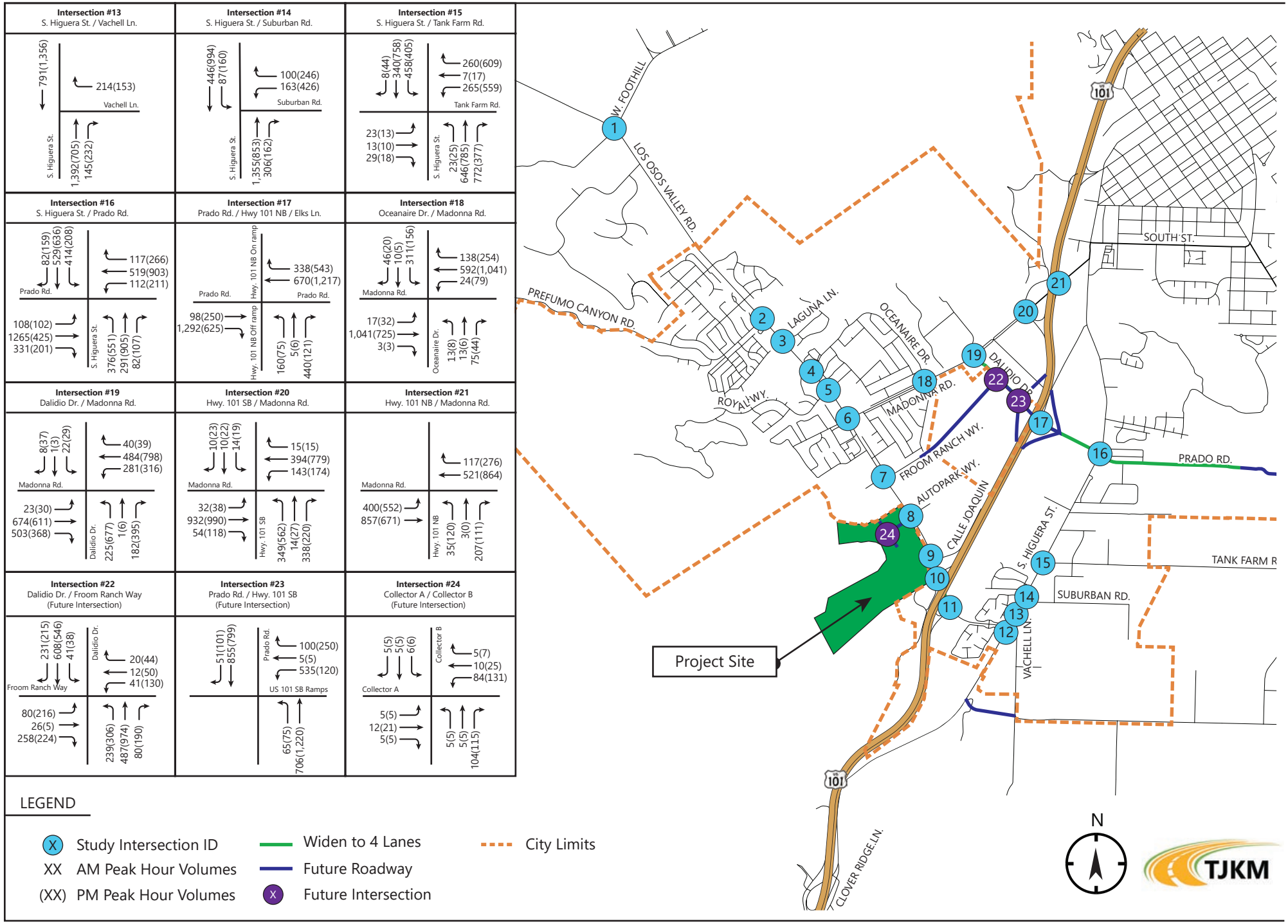


Figure 3.1-29

Cumulative (2035) Plus Project Turning Movement Volumes



292-003

Figure 3.1-29

3.3.10 Neighborhood Traffic Analysis

Primary access to the Specific Plan area would be via a new two-lane road Commercial Collector "A", which would intersect with Los Osos Valley Road at Auto Park Way. Commercial Collector "A" would connect Los Osos Valley Road to residential and commercial areas within Madonna Froom Ranch. Commercial Collector "A" would connect to Local Road 'A'. Local Road "A" would be a public roadway that extends from the proposed roundabout to residential areas within Madonna Froom Ranch and to the proposed public park. Local Road "A" would be a 44-foot-wide roadway with 5-foot-wide parkways and 5-foot-wide sidewalks.

Based on the trip generation and trip distribution analysis conducted for the internal project trips, the Local Road 'A' is estimated to have a daily traffic volume of 250 vpd—well within the City's Circulation Element maximum ADT threshold of 1,500 vpd for local streets. While street designs are preliminary at this point, the geometric design of Local Road 'A' includes 12-foot wide travel lanes and lacks features such as street parking, bulbouts, horizontal curves or other features that are typically required to maintain auto speeds within the City's established maximum target of 25 mph. If this street is to be accepted by the City as a public street, traffic calming measures such as speed humps, bulbouts or other elements should be incorporated into the design.

3.3.11 Vehicle Miles Traveled Comparison (City, County & Project)

On September 27, 2013, Governor Jerry Brown signed Senate Bill (SB) 743 (Steinberg) into law and started a process that changes transportation impact analysis as part of California Environmental Quality Act (CEQA) compliance. SB 743 directed the California Office of Planning and Research (OPR) to establish new CEQA guidance for jurisdictions that removes automobile vehicle delay and other similar measures of vehicular capacity or traffic congestion from CEQA transportation analysis. Rather, vehicle-miles traveled (VMT), or other measures that "promote[s] the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses," shall be used as a basis for determining significant transportation impacts in California. The intent of the change is to appropriately balance the needs of congestion management with statewide goals related to infill development, the promotion of public health through active transportation, and the reduction of greenhouse gas emissions.

VMT analysis is not mandatory per CEQA until 7/1/2020. Currently official measures and significance thresholds are still being developed and have not yet been adopted under CEQA. Therefore automobile LOS is still used as a significance threshold for CEQA review. The traffic study prepared for the Froom Ranch Specific Plan analyzes both multimodal LOS and VMT; however in the absence of official significance thresholds, no findings in regarding to vehicle miles traveled are made at this time. Hence, VMT analysis conducted for the project is provided for reference purposes only.

As reported by the City of San Luis Obispo's Travel Demand Model, the forecasted 2035 Daily VMT is approximately 12 million miles for the region and approximately 3.6 million miles for the sphere of influence. The average VMT per household is 80 for the region and 54 for the sphere of influence.

Project-generated VMT has been forecasted by adding the proposed land uses to the City's travel demand model. The City's travel demand model forecast for the project is 46,894 daily VMT, an increase of approximately 3% within the City sphere of influence and 0.4% within the County region. The VMT generated per household for the project is forecasted at 69 daily miles traveled per household. Although the project would have a VMT below the regional average, the VMT per household for the project is forecasted to be approximately 28 percent higher than the average for the City's sphere of influence. **Table 3.1-98** presents these calculations. Deatiled VMT analysis worksheets are included in **Appendix F**.

Table 3.1-102: Average Estimated Year 2035 VMT for the City, County and Project

Descriptions	Daily VMT	VMT per HH[1]
San Luis Obispo County	12,000,000	80
City of San Luis Obispo	1,500,000	54
Froom Ranch Project	46,894	69

Notes:
[1]Reported vehicle miles traveled per household
Source: Central Coast Transportation Consulting 2016.

3.3.12 Los Osos Valley Road and Los Verdes Driveway Assessment

Signal warrant analysis at the intersection of Los Osos Valley Road/Los Verdes Drive-Los Palos Drive was conducted in April 2018. Under existing conditions, this intersection operates with two-way stop control at Los Verdes Drive (southbound approach) and Los Palos Drive (northbound approach). Los Osos Valley Road is an east-west arterial within the study area with a posted speed limit of 35 miles per hour (mph). Los Osos Valley Road provides direct connectivity to US 101 and extends to Baywood-Los Osos in the west. The technical memorandum submitted by TJKM in April 2018 to the City, summarizes the results of the analysis conducted to determine whether a traffic signal is warranted at the intersection of Los Osos Valley Road/Los Verdes Drive-Los Palos Drive. The traffic signal warrant analysis was based on the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD).

The traffic signal warrant analysis conducted for the intersection concluded that none of the applicable warrants were satisfied. Based on the results, the installation of a traffic signal was not recommended for the intersection of Los Osos Valley Road/Los Verdes Drive-Los Palos Drive.

3.3.13 Fair-Share of Improvements Cost Calculations

Fair-share calculations have been identified for all intersections, which are projected to operate at unacceptable LOS under no project conditions, and experience an increase in delay with the addition of project traffic. Below is a listing of each of the study intersections warranting improvements, the corresponding improvements that the proposed project would be required to pay a fair-share of improvement cost towards, and the proposed project's equitable share of these improvements. The proposed project's equitable share is calculated using the method for calculating equitable mitigation measures outlined in the Caltrans Guide for the Preparation of Traffic Impact Studies (State of California, DOT, December 2002), which is shown below:

$P = T / (T_B – T_E)$ where,

Where,

P = The equitable share for the project's traffic impact.

T = The vehicle trips generated by the project during the peak hour of adjacent roadway facility in vehicles per hour (vph).

T_B = The forecasted traffic volume on an impacted roadway facility at the time of general plan build-out (e.g. 20 year model or the furthest model date feasible), vph.

T_E = The traffic volume existing on the impacted roadway facility plus other approved projects that will generate traffic that has yet to be constructed/opened, vph.

The Fair-Share calculations were calculated using Cumulative (Year 2035) Full Build project volumes. Note that the percent fair-share calculated using the above formula is reported to the nearest whole number and the calculations are based on the highest fair share percentage from the two peak hour scenarios. **Table 3.1-103** presents these calculations.

Table 3.1-103: Cumulative (2035) Fair Share Calculations

#	Intersection/Segment	Mode	Peak Hour	Fair Share Percentage	Project Added Traffic	Existing Volume	Cumulative plus Project Volume
Int #1	Los Osos Valley Road/Foothill Boulevard	Auto	PM	6%	25	2,082	2,503
Int #5	Los Osos Valley Road/Royal Way	Auto (Queue)	PM	5%	36	2,566	3,294
Int #6	Los Osos Valley Road/Madonna Road	Pedestrian	PM	14%	72	3,492	4,015
Int #9	Los Osos Valley Road/Calle Joaquin	Pedestrian	PM	21%	141	3,261	3,932
Int #10	Los Osos Valley Road/US 101 SB Ramps	Auto (Queue)	PM	31%	141	3,318	3,772
Int #15	S Higuera Street/Tank Farm Road	Pedestrian	PM	11%	55	3,107	3,602
Int #15	S Higuera Street/Tank Farm Road	Auto (Queue)	PM	11%	55	3,107	3,602
Int #18	Madonna Road/Oceanaire Drive	Auto (Queue)	AM/PM	12%	55	2,060	2,533
Int #19	Madonna Road/Dalidio Drive	Auto (Queue)	AM/PM	4%	28	2,590	3,310
Seg #1 SB	Los Osos Valley Road from Perfumo Canyon Road to Oceanaire Drive	Pedestrian	AM	5%	12	1,200	1,457
Seg #1 SB	Los Osos Valley Road from Perfumo Canyon Road to Oceanaire Drive	Pedestrian	PM	5%	19	898	1,312
Seg #1 NB	Los Osos Valley Road from Perfumo Canyon Road to Oceanaire Drive	Pedestrian	PM	4%	15	1,302	1,674
Seg #3 NB	Los Osos Valley Road from Madonna Road to Froom Ranch Way	Pedestrian	AM	11%	31	616	898
Seg #3 NB	Los Osos Valley Road from Madonna Road to Froom Ranch Way	Pedestrian	PM	20%	34	1,392	1,560
Seg #4 SB	Los Osos Valley road from Froom Ranch Way to Calle Joaquin	Pedestrian	AM	18%	63	910	1,270
Seg #4 SB	Los Osos Valley road from Froom Ranch Way to Calle Joaquin	Pedestrian	PM	19%	74	1,188	1,577
Seg #5 SB	Los Osos valley road from US 101 SB Ramps to US 101 NB Ramps	Pedestrian	AM	18%	48	973	1,239
Seg #5 SB	Los Osos valley road from US 101 SB Ramps to US 101 NB Ramps	Pedestrian	PM	23%	52	898	1,120

#	Intersection/Segment	Mode	Peak Hour	Fair Share Percentage	Project Added Traffic	Existing Volume	Cumulative plus Project Volume
Seg #5 NB	Los Osos valley road from US 101 SB Ramps to US 101 NB Ramps	Pedestrian	PM	15%	54	1,242	1,614
Seg #6 SB	Los Osos Valley Road from US 101 NB Ramps to S Higuera Street	Pedestrian	AM	8%	29	1,016	1,372
Seg #6 SB	Los Osos Valley Road from US 101 NB Ramps to S Higuera Street	Pedestrian	PM	15%	31	721	924
Seg #6 NB	Los Osos Valley Road from US 101 NB Ramps to S Higuera Street	Pedestrian	AM	24%	24	373	474
Fwy Seg 1	US 101 NB, south of S Higuera Street	Freeway	AM	3%	12	2,336	2,806
			PM	4%	18	2,374	2,858
	US 101 SB, north of S Higuera Street	Freeway	AM	3%	15	2,177	2,619
			PM	2%	15	3,519	4,224
Fwy Seg 2	US 101 NB, south of Los Osos Valley Road	Freeway	AM	2%	12	2,601	3,123
			PM	4%	18	1,991	2,400
	US 101 SB, south of Los Osos Valley Road	Freeway	AM	6%	15	1,213	1,466
			PM	4%	15	2,211	2,600
Fwy Seg 3	US 101 NB, north of Prado Road	Freeway	AM	5%	22	2,311	2,786
			PM	5%	23	2,224	2,683
	US 101 SB, north of Prado Road	Freeway	AM	5%	18	1,828	2,205
			PM	4%	26	2,976	3,586
Fwy Seg 4	US 101 NB, south of Madonna Road	Freeway	AM	4%	22	2,843	3,423
			PM	4%	23	3,097	3,727
	US 101 SB, north of Madonna Road	Freeway	AM	4%	18	1,968	2,372
			PM	4%	26	2,926	3,526

3.3.14 Access Management Assessment

3.3.14.1 On-Site Access and Circulation

This section analyzes site access and internal circulation for vehicles, pedestrians and bicycles based on the site plan presented on **Figure 2-1**. TJKM reviewed internal and external access for the project site for vehicles, pedestrians, and bicycles.

TJKM reviewed the proposed project site plan to evaluate on-site access to the project. City has a "roundabout first' policy for intersections requiring signalization or all way stop control. Preliminary analysis of the LOVR/Auto Park intersection found that roundabout control was not a feasible option due to projected LOS that exceeds City Standards.

Based on the site plan provided by the Project applicant, TJKM assumed following lane geometries at the project entrance intersection of Los Osos Valley Road and Auto Park Way:

- Northbound – two left turn lanes, one through lane and one shared through right turn lane
- Southbound – one left turn lane, two through lane and one exclusive right turn lane
- Eastbound – one left turn lane, one through lane and one exclusive right turn lane
- Westbound – one left turn lane and one shared through right turn lane

Based on the proposed lane geometries, the intersection was analyzed as a six-phase signal with protected left turn lanes in the northbound and southbound direction and with permissive left turn lanes in the eastbound and westbound directions.

TJKM also conducted sensitivity analysis to check if a second northbound left turn lane would be needed if a vehicle connection between Froom Ranch and Irish hills Shopping Center were to be provided in the future. Based on the analysis, TJKM recommends narrowing the project entrance intersection of Los Osos Valley Road and Auto Park Way by providing only one northbound left turn lane entering the project site, 200 feet in length. Provision of a single 200-foot northbound left-turn lane entering the project site would still be adequate even if the northbound left-turn volume were to double (compared to just the predicted project volume) under Cumulative plus Project conditions. If the City desires that width be reserved for a potential future second northbound left-turn lane at this location, a temporary median is recommended within this space as an interim measure until additional capacity is warranted.

The Project's proposed internal circulation system would connect to Los Osos Valley Road and existing sidewalks and bicycle facilities adjacent to the Project site. The proposed circulation system would include new roads, sidewalks, and bicycle facilities within Madonna Froom Ranch. In addition, private roadways and pedestrian paths are proposed in Villaggio (Figure 2-9). Major components of the proposed circulation system are summarized below:

1. Proposed internal roadway network consisting of public and private roads;
2. Proposed bicycle and pedestrian facilities within the Specific Plan area;
3. Parking facilities to accommodate residents, employees, and visitors within the Specific Plan area;
4. Widening of LOVR along a portion of the Project site's frontage;
5. A proposed signalized intersection at LOVR and Auto Park Way to serve as the primary entrance to the Specific Plan area; and
6. A new bus stop that would be integrated into the regional public transportation system.

Primary access to the Specific Plan area would be via a new two-lane road Commercial Collector "A", which would intersect with Los Osos Valley Road at Auto Park Way. The new intersection would be located approximately 1,000 feet south of the intersection of Los Osos Valley Road and Froom Ranch Way. The proposed Los Osos Valley Road/Auto Park Way intersection would be signalized and would provide pedestrian crossings at each leg. The Project proposes improvements to an approximate 813-foot-long segment of LOVR along the northeastern boundary of the Specific Plan area at the proposed intersection of Commercial Collector "A" and Los Osos Valley Road. Los Osos Valley Road would be widened along this segment by about 35 feet into the Specific Plan area to accommodate new left and right turn lanes into the Project site (Figure 2-10). The Project would restripe existing travel lanes, Class II bicycle lanes, and center turn lane along this segment. A new sidewalk and parkway would also be installed along approximately 550 feet on the west side of Los Osos Valley Road to extend the existing sidewalk along Irish Hills Plaza to the Project site entrance.

All roadways within Madonna Froom Ranch would be open to the public and accessible by motorists, bicyclists, and pedestrians from LOVR. Commercial Collector "A" would connect LOVR to residential and commercial areas within Madonna Froom Ranch. Commercial Collector "A" would be a 73-foot-wide roadway with one 12-foot-wide travel lane in each direction, a planted median divider, 6-foot-wide Class II bicycle lanes, 8-foot-wide parkways, and 6-foot-wide sidewalks.

Commercial Collector "B" would connect to the main entrance to Villaggio and terminate at the Project site's boundary to the north. Commercial Collector "B" would be 44 feet wide with one 12-foot-wide travel lane in each direction, 5-foot-wide parkways, and 5-foot-wide sidewalks. Only pedestrian and bicycle access would be allowed to the adjacent Irish Hills Plaza using bollards or similar devices to restrict vehicular travel.

Local Road "A" would be a public roadway that extends from the proposed roundabout to residential areas within Madonna Froom Ranch and to the proposed public park. Local Road "A" would be a 44-foot-wide roadway with 5-foot-wide parkways and 5-foot-wide sidewalks.

A roundabout intersection of Commercial Collectors "A" and "B" and Local Road "A" is proposed with one travel lane and a central island within landscaping, signage, and decorative features. The roundabout intersection would include designated pedestrian crossings.

Local Roads "B" and "C" would be private roads within Villaggio (Figure 2-12). Local Road "B" would serve as the primary ingress/egress to Villaggio from Commercial Collector "B" past the Villaggio entrance gate to a central location in the lower area of Villaggio near the Commons. Local Road "B" would include one 12-foot-wide travel lane in each direction, a 10-foot-wide landscaped median, 5-foot-wide landscaped parkways, and 5-foot-wide sidewalks. Local Road "C" would provide private access throughout Villaggio and would connect the upper terrace and lower area. Local Road "C" would include two 12-foot-wide vehicle travel lanes with 2-foot-wide shoulders and no sidewalks.

The project is anticipated to generate approximately 2,700 daily vehicle trips. Therefore the volume of traffic on internal commercial collector streets would be less than the 10,000 vpd threshold, while traffic dispersed on to internal local streets would be less than 1,000 daily vehicles.

While specific locations and design of on-site access driveways have not been developed at a level necessary to conduct detailed review as part of this study, future connections would need to be designed per City Engineering Standards and Access Management Policies. Based on review of preliminary plans, the proposed on-site vehicle circulation is adequate and should not result in any significant impacts on City streets.

3.3.14.2 Emergency Vehicle Access Impacts

Emergency access roads would be 20 feet wide with 2-foot-wide shoulders, constructed of an all-weather surface, and built to approval of the City Fire Department. Three emergency access points are proposed within the Specific Plan area (Figure 2-9), as follows:

Upper Terrace Emergency Access

Emergency vehicle access to the Specific Plan area would be provided via a gated emergency access road extending from the Specific Plan area boundary to the Mountainbrook Church on the upper terrace. Emergency access is proposed as a paved at-grade surface road with a private gated entry that would connect to an existing decomposed granite road and parking area on the Mountainbrook Church property. The gate would be equipped with fire access security for emergency vehicle access, and a pedestrian gate with a key pad for Villaggio residents. This emergency access road would also provide pedestrian and bicycle access for Villaggio residents to Mountainbrook Church. Limited golf cart parking would be allowed within the upper terrace near the gated entry, though golf carts would not be permitted to pass through to Mountainbrook Church.

Trailhead Park Emergency Access

A paved emergency access road would connect Commercial Collector "B" to the cul-de-sac of the proposed public park's parking lot and driveway, providing an alternate accessway to the park and the upper portions of Madonna Froom Ranch. Removable bollards at the park's cul-de-sac and the connection to Commercial Collector "B" would be installed to restrict vehicular access into the park via the emergency access road. The

emergency access road would also provide a pedestrian connection, paved with colored and scored concrete, or drivable pavers (see also, Figure 2-7).

Irish Hills Plaza Emergency Access

The northern terminus of Commercial Collector "B" at the Project site boundary would provide for passage of emergency vehicles and personnel via the parking lot of Irish Hills Plaza with removal of proposed bollards.

TJKM examined the project site plan (Figure 2-12) in order to evaluate the adequacy of on-site vehicles, vans and emergency vehicles circulation. The internal circulation was reviewed for issues related to queueing, turning radii, and safety and circulation aisles. The circulation aisle accommodates one-way travel and the turning radii appears to be adequate for the passenger vehicles, and emergency vehicles. Overall, the proposed on-site vehicle circulation is adequate and should not result in any significant impacts on City streets.

3.3.14.3 Pedestrian Access Impacts

Sidewalks are proposed along an approximate 550-foot-long portion of LOVR from the new transit stop location north to Irish Hills Plaza, along Commercial Collectors "A" and "B" and Local Roads "A" and "B". Sidewalks would range between 5 and 10 feet in width. Proposed sidewalks would facilitate pedestrian circulation between proposed residential neighborhoods, commercial, and recreational areas. The sidewalks would include lighting, paving, bulb-outs at intersections, and landscaping.

Local Roads "C" within Villaggio would not include sidewalks. Instead, a network of private walking trails separated from vehicle roadways would be provided for Villaggio residents.

To improve pedestrian crossing safety and accessibility at the Project entry at Los Osos Valley Road/Auto Park Way, TJKM recommends consideration for the following modifications to the preliminary Project concept designs at this intersection:

- Install of pedestrian refuges within center medians at north and south legs of the intersection
- Install a bulbout at the southwest corner of the intersection to shorten pedestrian crossing distance at the south leg of the intersection
- Install Lead Pedestrian Intervals (LPIs) at all pedestrian crossings at this intersection

Pedestrian Trail System

The Project includes a public pedestrian trail that would generally follow the proposed realigned Froom Creek corridor through the Specific Plan area. The Froom Creek Trail would extend approximately 2,500 linear feet from the existing Froom Creek Connector Trail within the adjacent Irish Hills Natural Reserve and would terminate at a public viewing/rest area adjacent to onsite wetlands and the reconfigured agriculture and open space easement. The terminus of the trail would connect to a private Villaggio gated

pedestrian access point (Figure 2-9). The proposed Froom Creek Trail would be accessible from Madonna Froom Ranch, Villaggio, and the existing Irish Hills Natural Reserve trails system. Froom Creek Trail would also be accessible via 6-foot-wide pedestrian trails that would extend through the Madonna Froom Ranch residential areas and Trailhead Park. The proposed public Froom Creek Trail would be a 6-foot-wide, decomposed granite (or other stabilized natural surface) pedestrian trail and would not provide lighting. Potential trail amenities would include benches, signage, trash cans, landscaping, and dog waste stations. Portions of the trail would be located within the 35-foot-wide riparian setback of realigned Froom Creek.

A significant impact occurs if the proposed project conflicts with applicable or adopted policies, plans or programs related to pedestrian's facilities or otherwise decrease the performance or safety of pedestrian facilities. The proposed project will not result in any significant impacts to existing or planned pedestrian facilities in the immediate vicinity of the project because of the absence of such conflicts.

To accommodate all users of the street system and provide a complete and connected pedestrian facility between the project site transit service and nearby land uses, it is recommended that sidewalks be provided within the project site as per the City of San Luis Obispo standards and the design should meet ADA requirements for a comfortable walking environment. It is recommended that the crosswalks along the project driveways should be enhanced with high-visibility treatments and signage.

3.3.14.4 Bicycle Access Impacts

The Project includes a proposed bicycle network within the Specific Plan area that would connect with existing bicycle lanes along LOVR. Proposed 6-foot-wide Class II striped bicycle lanes would be included along Commercial Collector "A". Class III bicycle routes are also proposed along Commercial Collector "B" and Local Road "A" to connect Trailhead Park and residential areas within Madonna Froom Ranch (Figure 2-11). These roadways would be designed with shared lane markings ("sharrows") with on-street painted bicycle symbols to demarcate a preferred route for shared vehicular and bicycle travel. Bicycle parking would be provided to commercial, recreational, and residential uses within Madonna Froom Ranch, consistent with City zoning requirements.

In terms of bicycle access to the project site, there are Class II bike lanes provided along Los Osos Valley Road along both sides near the project site. Overall, existing bicycle facilities provide adequate connectivity between the proposed project site and the adjacent residential neighborhoods.

Impact to bicyclists are considered significant if the proposed project disrupts existing bicycle facilities; or conflicts or creates inconsistencies with adopted bicycle system plans, guidelines, policies or standards as per the City of San Luis Obispo. The project does not conflict with existing and planned bicycle facilities or policies; therefore, the impact to bicycle facilities is less-than-significant.

While not required to mitigate Project impacts per CEQA, there are several modifications to the Project's preliminary designs that are recommended for consideration to provide consistency with City-adopted best practices for high-quality bicycle facility design, such as design guidance published by NACTO and FHWA:

- Install protected bicycle intersection features as part of signalization and intersection improvements at the Los Osos Valley Road/Auto Park intersection. These design features improve bicycle safety and accessibility and would be consistent with planned improvements at the nearby Los Osos Valley Road/Froom Ranch Way and Madonna/Dalidio intersections.
- Provide physically protected bicycle lanes (Class IV Bikeway) along Los Osos Valley Road approaching/departing the Auto Park Way intersection and along Commercial Collector 'A'. Class IV Bikeways can be installed on-street with a physical barrier between cyclists and vehicular traffic or by constructing raised bicycle facilities at the sidewalk level adjacent to pedestrian sidewalks. While not required per the City's currently adopted Bicycle Transportation Plan, as part of the City's forthcoming Plan update, Class IV Bikeways are expected to be desired on all City arterial and collector streets.

2.1.1.1 Transit Access Impacts

A single new bus stop is proposed in the southbound direction of LOVR, just south of the intersection of Commercial Collector "A" and LOVR at the Project's primary access. The Applicant would coordinate with the City Transit Division (SLO Transit) to integrate with existing SLO Transit routes 2A and 2B. The proposed project will add very few trips to the existing transit services, which can be accommodated by the existing transit capacity and hence the project is estimated to have less-than-significant impact to the transit facilities.

3.3.14.5 Parking Assessment

Motor vehicle parking would be provided in accordance with City development standards consistent with the requirements of Chapter 17.16 of the City Municipal Code. No on-street parking is proposed along Commercial Collectors or Local Roads.

Villaggio would provide an estimated 834 motor vehicle parking spaces. Subsurface parking garages would provide approximately 457 parking spaces located within the lower area and upper terrace of Villaggio. Subterranean parking garages would descend up to 10 feet below finished ground surface within the upper terrace and would vary between 2 to 10 feet below finished ground surface within the lower area. Parking for detached villas would be provide in two car garages. Within Madonna Froom Ranch, residential and commercial areas would contain parking spaces based on the number of bedrooms proposed for development and the size of development. A public surface parking lot containing 30 spaces would be located within Trailhead Park.

Appendix A – Traffic Count Sheets

Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:

County of San Luis Obispo
1087 Santa Rosa Street
San Luis Obispo, CA 93408

LOCATION LOVR @ Foothill Boulevard
COUNTY San Luis Obispo
COLLECTION DATE 9/28/2014
LATITUDE 35.276616°
LONGITUDE -120.711634°
WEATHER Sunny and Clear

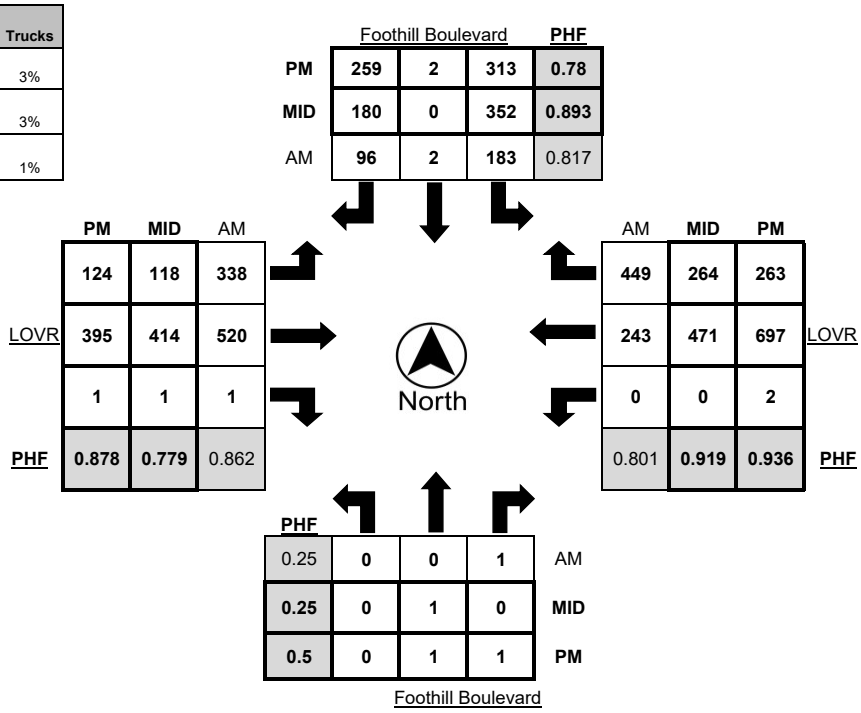
	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:00 AM - 7:15 AM	0	0	0	0	9	0	5	0	33	99	0	3	0	34	21	4
7:15 AM - 7:30 AM	0	1	1	0	9	0	18	2	53	120	0	9	1	45	51	8
7:30 AM - 7:45 AM	0	0	0	0	26	1	25	3	98	124	0	6	0	57	72	5
7:45 AM - 8:00 AM	0	0	0	0	39	1	29	4	87	162	0	2	0	63	96	4
8:00 AM - 8:15 AM	0	0	1	1	62	0	24	2	75	123	0	7	0	63	125	11
8:15 AM - 8:30 AM	0	0	0	0	56	0	18	3	78	111	1	4	0	60	156	8
8:30 AM - 8:45 AM	0	0	0	0	69	0	22	2	39	110	1	4	0	52	76	9
8:45 AM - 9:00 AM	0	0	1	0	41	0	20	2	52	114	0	2	0	49	100	6
TOTAL	**0**	**1**	**3**	**1**	**311**	**2**	**161**	**18**	**515**	**963**	**2**	**37**	**1**	**423**	**697**	**55**

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
2:00 PM - 2:15 PM	0	0	0	0	52	0	43	6	33	102	1	9	1	83	68	7
2:15 PM - 2:30 PM	0	0	0	0	59	0	24	2	23	66	1	2	1	102	71	4
2:30 PM - 2:45 PM	0	0	0	0	84	0	29	1	22	54	1	5	0	116	65	6
2:45 PM - 3:00 PM	0	0	0	0	100	0	41	5	44	127	0	3	0	120	68	4
3:00 PM - 3:15 PM	0	0	0	0	69	0	45	3	21	85	0	2	0	101	72	5
3:15 PM - 3:30 PM	0	0	0	0	82	0	46	4	24	106	0	4	0	124	76	12
3:30 PM - 3:45 PM	0	1	0	0	101	0	48	7	29	96	1	5	0	126	48	5
3:45 PM - 4:00 PM	0	0	0	0	69	0	29	3	37	94	0	1	0	143	83	11
TOTAL	**0**	**1**	**0**	**0**	**616**	**0**	**305**	**31**	**233**	**730**	**4**	**31**	**2**	**915**	**551**	**54**

	Northbound				Southbound				Eastbound				Westbound			
Time	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
4:00 PM - 4:15 PM	0	0	1	0	75	1	44	4	25	100	0	2	1	161	67	8
4:15 PM - 4:30 PM	0	0	0	0	86	0	53	3	23	72	0	4	0	133	74	3
4:30 PM - 4:45 PM	0	0	0	0	80	0	40	1	19	80	0	4	2	143	66	7
4:45 PM - 5:00 PM	0	0	0	0	77	0	58	3	33	115	0	1	2	169	66	4
5:00 PM - 5:15 PM	0	1	0	0	74	1	52	1	29	88	1	4	0	177	61	3
5:15 PM - 5:30 PM	0	0	0	0	94	0	90	1	33	111	0	4	0	176	81	2
5:30 PM - 5:45 PM	0	0	1	0	68	1	59	0	29	81	0	4	0	175	55	3
5:45 PM - 6:00 PM	0	0	0	0	61	0	60	1	15	65	0	0	0	156	61	1
TOTAL	**0**	**1**	**2**	**0**	**615**	**3**	**456**	**14**	**206**	**712**	**1**	**23**	**5**	**1290**	**531**	**31**

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**	**Left**	**Thru**	**Right**	**Trucks**
7:30 AM - 8:30 AM	0	0	1	1	183	2	96	12	338	520	1	19	0	243	449	28
2:45 PM - 3:45 PM	0	1	0	0	352	0	180	19	118	414	1	14	0	471	264	26
4:45 PM - 5:45 PM	0	1	1	0	313	2	259	5	124	395	1	13	2	697	263	12

	PHF	Trucks
AM	0.955	3%
MID	0.901	3%
PM	0.879	1%



Metro Traffic Data Inc.
310 N. Irwin Street - Suite 20
Hanford, CA 93230

800-975-6938 Phone/Fax
www.metrotrafficdata.com

Turning Movement Report

Prepared For:
County of San Luis Obispo
1087 Santa Rosa Street
San Luis Obispo, CA 93408

LOCATION LOVR @ Foothill Boulevard
COUNTY San Luis Obispo
COLLECTION DATE 9/28/2014
LATITUDE 35.276616°
LONGITUDE -120.711634°
WEATHER Sunny and Clear

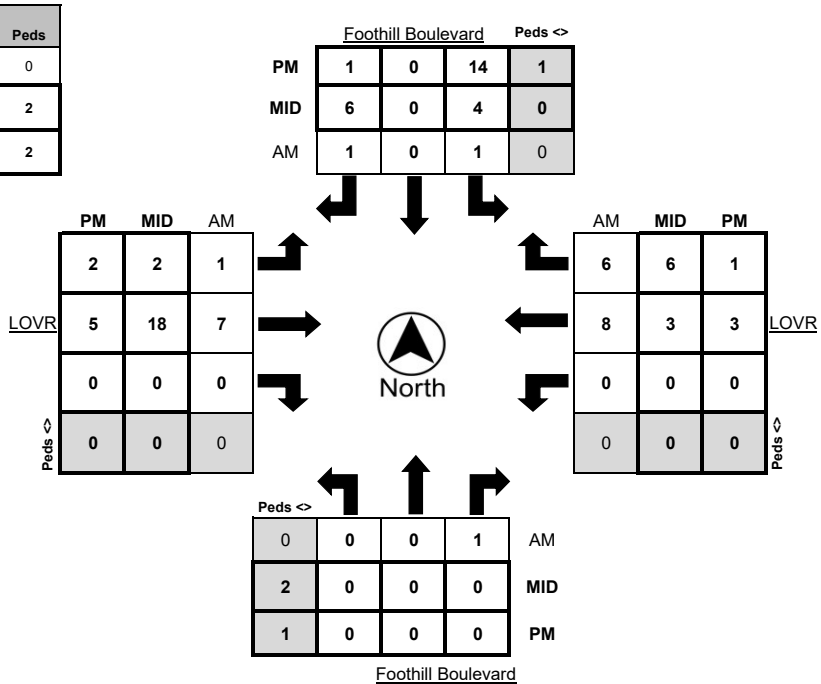
	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
Time	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
7:00 AM - 7:15 AM	0	0	0	0	0	0	3	0	1	2	0	0	0	1	3	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	2	0	1	0	0	0	2	2	1
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	2	1	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0
8:00 AM - 8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	3	2	0
8:15 AM - 8:30 AM	0	0	0	0	1	0	1	0	1	0	0	0	0	1	2	0
8:30 AM - 8:45 AM	0	0	0	0	2	0	0	0	0	3	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	2	0	0	0	0	2	0	0	0	1	2	0
TOTAL	**0**	**0**	**1**	**0**	**5**	**0**	**4**	**2**	**2**	**15**	**0**	**0**	**0**	**12**	**13**	**1**

	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
Time	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
2:00 PM - 2:15 PM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 2:30 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	2	1	0
2:30 PM - 2:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	6	1	0
2:45 PM - 3:00 PM	0	0	0	0	1	0	3	1	0	0	0	0	0	1	4	0
3:00 PM - 3:15 PM	0	0	0	0	2	0	2	0	0	2	0	0	0	1	1	0
3:15 PM - 3:30 PM	0	0	0	0	1	0	1	0	0	9	0	0	0	0	0	0
3:30 PM - 3:45 PM	0	0	0	0	0	0	0	1	2	7	0	0	0	1	1	0
3:45 PM - 4:00 PM	0	0	0	0	2	0	0	0	1	0	0	0	0	0	1	0
TOTAL	**0**	**0**	**0**	**0**	**12**	**0**	**6**	**2**	**3**	**19**	**0**	**0**	**0**	**11**	**9**	**0**

	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
Time	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
4:00 PM - 4:15 PM	0	0	0	0	2	0	1	0	0	1	0	0	0	1	1	0
4:15 PM - 4:30 PM	0	0	0	0	3	0	1	0	0	0	0	0	0	1	0	0
4:30 PM - 4:45 PM	0	0	0	1	0	0	0	0	0	6	0	0	0	1	1	0
4:45 PM - 5:00 PM	0	0	0	0	3	0	1	0	0	0	0	0	0	1	1	0
5:00 PM - 5:15 PM	0	0	0	0	5	0	0	0	1	2	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	3	0	0	0	0	1	0	0	0	1	0	0
5:30 PM - 5:45 PM	0	0	0	1	3	0	0	1	1	2	0	0	0	1	0	0
5:45 PM - 6:00 PM	0	0	0	0	2	0	2	0	2	1	0	0	0	2	1	0
TOTAL	**0**	**0**	**0**	**2**	**21**	**0**	**5**	**1**	**4**	**13**	**0**	**0**	**0**	**8**	**4**	**0**

	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
PEAK HOUR	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
7:30 AM - 8:30 AM	0	0	1	0	1	0	1	0	1	7	0	0	0	8	6	0
2:45 PM - 3:45 PM	0	0	0	0	4	0	6	2	2	18	0	0	0	3	6	0
4:45 PM - 5:45 PM	0	0	0	1	14	0	1	1	2	5	0	0	0	3	1	0

	Bikes	Peds
AM	25	0
MID	39	2
PM	26	2



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, Apr 5, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Prefumo Canyon

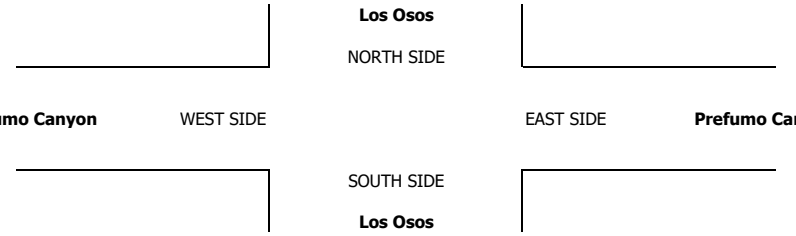
PROJECT #: SC0843
LOCATION #: 73
CONTROL: STOP E

NOTES:

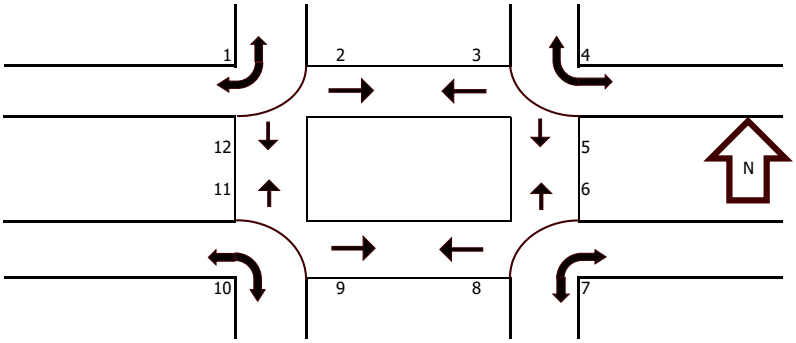
AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Prefumo Canyon			WESTBOUND Prefumo Canyon				U-TURNS				
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL	NB 0	SB 0	EB 0	WB X	TTL
AM	7:00 AM	9	107	0	0	207	3	5	0	36	0	0	0	367	0	0	0	0	0
	7:15 AM	12	113	0	0	228	1	5	0	32	0	0	0	391	0	0	1	0	1
	7:30 AM	13	160	0	0	249	1	5	0	30	0	0	0	458	0	0	0	0	0
	7:45 AM	13	128	0	0	187	2	5	0	39	0	0	0	374	0	0	0	0	0
	8:00 AM	13	107	0	0	216	6	4	0	20	0	0	0	366	0	0	0	0	0
	8:15 AM	16	113	0	0	185	1	7	0	27	0	0	0	349	0	0	0	0	0
	8:30 AM	20	93	0	0	148	1	3	0	19	0	0	0	284	0	0	0	0	0
	8:45 AM	16	100	0	0	156	5	5	0	29	0	0	0	311	0	0	0	0	0
	VOLUMES	112	921	0	0	1,576	20	39	0	232	0	0	0	2,900	0	0	1	0	1
	APPROACH %	11%	89%	0%	0%	99%	1%	14%	0%	86%	0%	0%	0%						
	APP/DEPART	1,033	/	959	1,596	/	1,808	271	/	0	0	/	133	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	47	508	0	0	871	7	20	0	137	0	0	0	1,590					
	APPROACH %	8%	92%	0%	0%	99%	1%	13%	0%	87%	0%	0%	0%						
	PEAK HR FACTOR		0.802			0.878			0.892			0.000		0.868					
	APP/DEPART	555	/	527	878	/	1,008	157	/	0	0	/	55	0					
MD	11:00 AM	14	151	0	0	151	5	4	0	19	0	0	0	344	0	0	0	0	0
	11:15 AM	19	128	0	0	169	2	3	0	22	0	0	0	343	0	0	0	0	0
	11:30 AM	29	141	0	0	184	7	3	0	23	0	0	0	387	0	0	0	0	0
	11:45 AM	33	164	0	0	149	1	2	0	23	0	0	0	372	0	0	0	0	0
	12:00 PM	26	170	0	0	141	1	1	0	22	0	0	0	361	0	0	0	0	0
	12:15 PM	32	168	0	0	153	4	4	0	27	0	0	0	388	0	0	0	0	0
	12:30 PM	37	144	0	1	158	5	1	0	19	0	0	0	365	1	1	0	0	2
	12:45 PM	19	176	0	0	138	4	4	0	32	0	0	0	373	1	0	0	0	1
	VOLUMES	209	1,242	0	1	1,243	29	22	0	187	0	0	0	2,933	2	1	0	0	3
	APPROACH %	14%	86%	0%	0%	98%	2%	11%	0%	89%	0%	0%	0%						
	APP/DEPART	1,451	/	1,265	1,273	/	1,432	209	/	0	0	/	236	0					
	BEGIN PEAK HR		11:30 AM																
	VOLUMES	120	643	0	0	627	13	10	0	95	0	0	0	1,508					
	APPROACH %	16%	84%	0%	0%	98%	2%	10%	0%	90%	0%	0%	0%						
	PEAK HR FACTOR		0.954			0.838			0.847			0.000		0.972					
	APP/DEPART	763	/	653	640	/	722	105	/	0	0	/	133	0					
PM	04:00 PM	41	258	0	0	208	5	5	0	16	0	0	0	533	0	0	0	0	0
	4:15 PM	35	241	0	0	186	4	3	0	36	0	0	0	505	1	0	0	0	1
	4:30 PM	36	232	0	0	202	7	4	0	23	0	0	0	504	0	0	0	0	0
	4:45 PM	45	302	0	0	196	7	0	0	24	0	0	0	574	0	0	0	0	0
	5:00 PM	34	263	0	0	182	5	2	0	19	0	0	0	505	0	0	0	0	0
	5:15 PM	41	311	0	0	200	11	4	0	22	0	0	0	589	0	0	0	0	0
	5:30 PM	47	264	0	0	174	8	5	0	21	0	0	0	519	0	0	0	0	0
	5:45 PM	31	213	0	1	134	8	4	0	26	0	0	0	417	0	1	0	0	1
	VOLUMES	310	2,084	0	1	1,482	55	27	0	187	0	0	0	4,146	1	1	0	0	2
	APPROACH %	13%	87%	0%	0%	96%	4%	13%	0%	87%	0%	0%	0%						
	APP/DEPART	2,394	/	2,112	1,538	/	1,670	214	/	0	0	/	364	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	167	1,140	0	0	752	31	11	0	86	0	0	0	2,187					
	APPROACH %	13%	87%	0%	0%	96%	4%	11%	0%	89%	0%	0%	0%						
	PEAK HR FACTOR		0.928			0.928			0.933			0.000		0.928					
	APP/DEPART	1,307	/	1,151	783	/	838	97	/	0	0	/	198	0					



		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:00 AM	0	1	0	3	0	0	0	0	0	0	0	0	4
	7:15 AM	0	0	0	1	0	1	0	0	0	0	1	1	4
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	4	0	0	4
	8:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	2
	TOTAL	1	1	0	5	0	1	0	0	0	6	1	1	16
MD	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	12:00 PM	1	0	0	0	0	0	0	0	0	1	0	0	2
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	2
	TOTAL	2	0	0	0	0	0	0	0	0	3	0	0	5
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	TOTAL	0	0	0	0	0	0	0	0	0	3	1	0	4



INTERSECTION TURNING MOVEMENT COUNTS

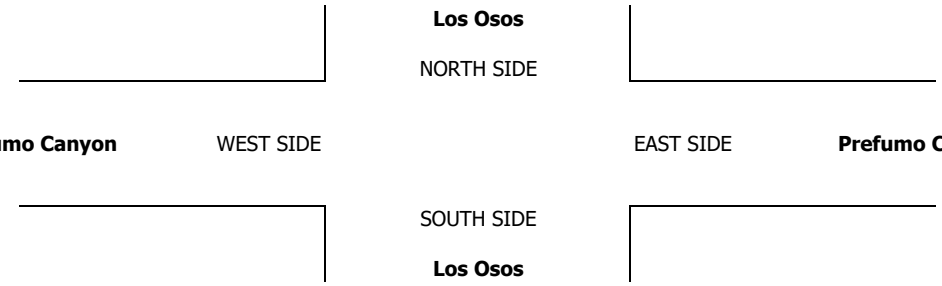
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	San Luis Obispo	PROJECT #:	SC0843
Tue, Apr 5, 16	NORTH & SOUTH:	Los Osos	LOCATION #:	73
	EAST & WEST:	Prefumo Canyon	CONTROL:	STOP E

NOTES:

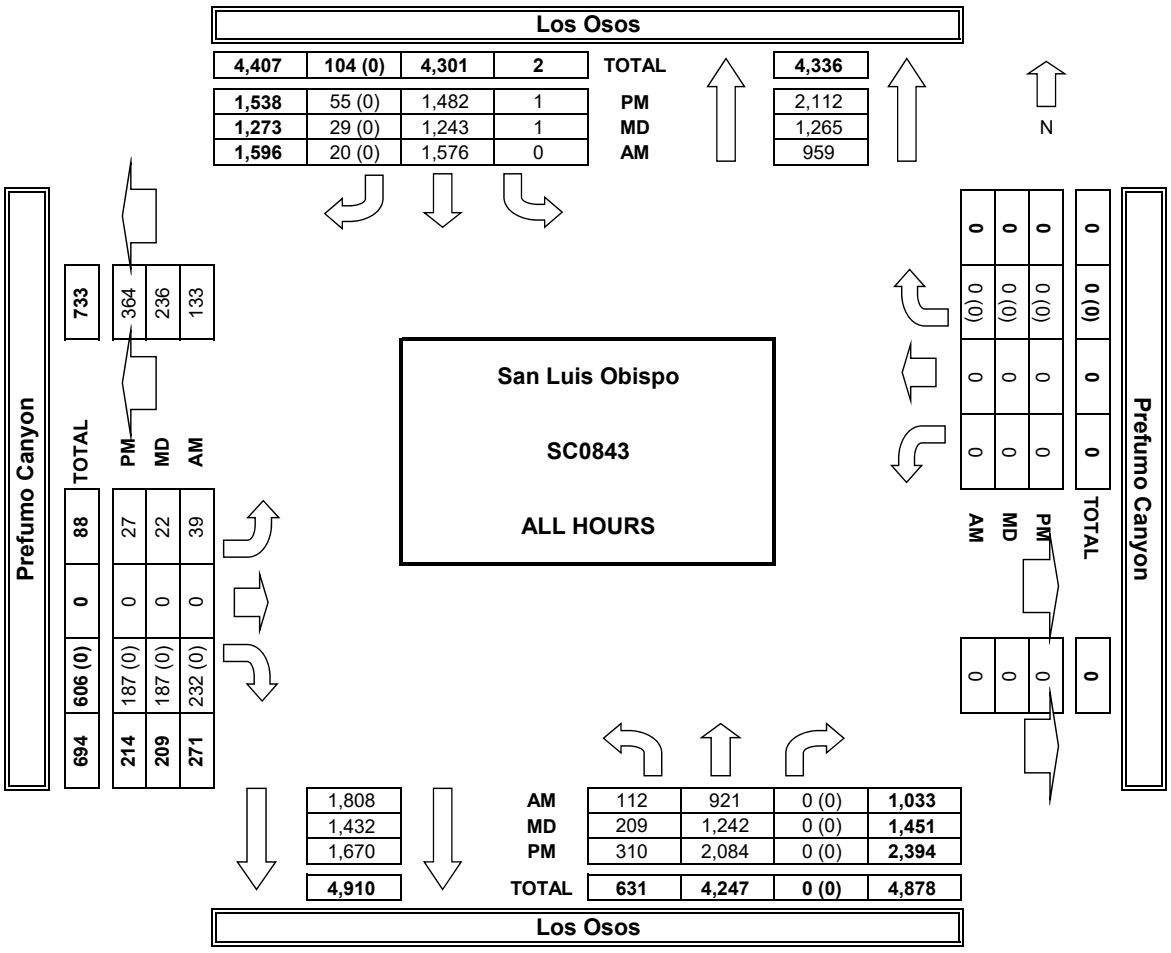
AM / PM / MD / OTHER / OTHER — ▲ N / ◄ W / E ► / S ▼

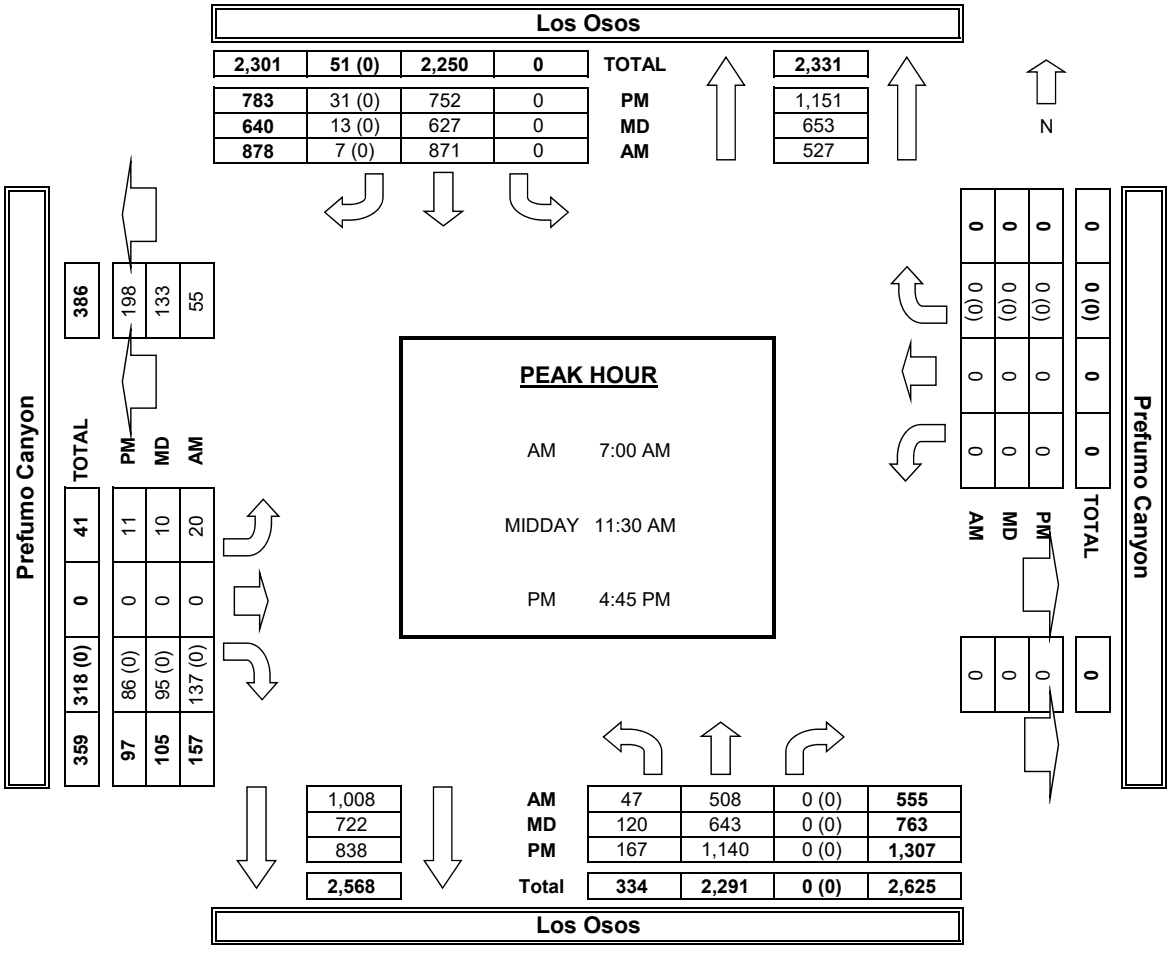
		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Prefumo Canyon			WESTBOUND Prefumo Canyon			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	3	0	0	0	0	0	0	1	0	0	0	4
	7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	7:30 AM	0	0	0	0	1	0	0	0	1	0	0	0	2
	7:45 AM	0	0	0	0	1	0	1	0	2	0	0	0	4
	8:00 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
	8:15 AM	0	0	0	0	1	0	0	0	0	0	1	0	2
	8:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	8:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	1	6	0	0	7	0	1	0	4	0	1	0	20
	APPROACH %	14%	86%	0%	0%	100%	0%	20%	0%	80%	0%	100%	0%	
	APP/DEPART	7	/	7	7	/	11	5	/	0	1	/	2	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	4	0	0	3	0	1	0	4	0	0	0	12
	APPROACH %	0%	100%	0%	0%	100%	0%	20%	0%	80%	0%	0%	0%	
	PEAK HR FACTOR		0.333			0.750			0.417			0.000		0.750
	APP/DEPART	4	/	5	3	/	7	5	/	0	0	/	0	0
MD	11:00 AM	0	7	0	0	0	0	0	0	0	0	0	0	7
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:30 AM	2	0	0	0	2	0	0	0	0	0	0	0	4
	11:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	2
	12:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	12:15 PM	1	3	0	0	2	0	0	0	2	0	0	0	8
	12:30 PM	2	0	0	0	6	1	0	0	1	0	0	0	10
	12:45 PM	1	1	0	0	7	1	0	0	3	0	0	0	13
	VOLUMES	8	11	0	0	18	2	0	0	6	0	0	0	45
	APPROACH %	42%	58%	0%	0%	90%	10%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	19	/	11	20	/	24	6	/	0	0	/	10	0
	BEGIN PEAK HR		12:00 PM											
	VOLUMES	5	4	0	0	15	2	0	0	6	0	0	0	32
	APPROACH %	56%	44%	0%	0%	88%	12%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.563			0.531			0.500			0.000		0.615
	APP/DEPART	9	/	4	17	/	21	6	/	0	0	/	7	0
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	5:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	5:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	5:45 PM	0	1	0	0	3	0	0	0	0	0	0	0	4
	VOLUMES	1	4	0	0	4	0	0	0	1	0	0	0	10
	APPROACH %	20%	80%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	5	/	4	4	/	5	1	/	0	0	/	1	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	1	2	0	0	4	0	0	0	1	0	0	0	8
	APPROACH %	33%	67%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.333			0.250			0.000		0.500
	APP/DEPART	3	/	2	4	/	5	1	/	0	0	/	1	0



AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, Apr 5, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Laguna

PROJECT #: SC0843
LOCATION #: 74
CONTROL: SIGNAL

NOTES:

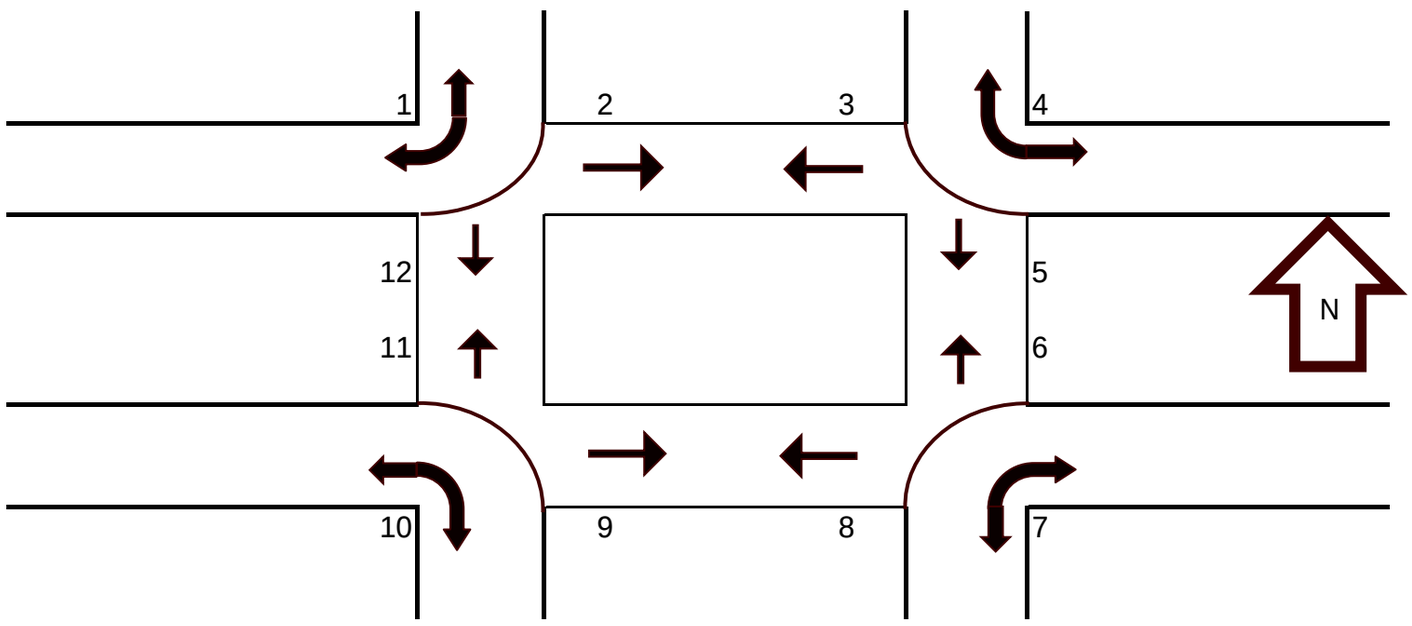
AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Laguna			WESTBOUND Laguna				U-TURNS				
	LANES:	NL X	NT 2	NR 1	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 2	WT X	WR 1	TOTAL	NB 0	SB 0	EB X	WB 0	TTL
AM	7:30 AM	0	112	27	12	213	0	0	0	0	19	0	9	392	0	0	0	0	0
	7:45 AM	0	104	115	23	250	0	0	0	0	87	0	28	607	0	0	0	0	0
	8:00 AM	0	129	132	36	225	0	0	0	0	144	0	46	712	0	0	0	0	0
	8:15 AM	0	108	13	6	243	0	0	0	0	23	0	11	404	0	0	0	0	0
	8:30 AM	0	103	14	3	213	0	0	0	0	9	0	6	348	0	0	0	0	0
	8:45 AM	0	113	2	1	227	0	0	0	0	9	0	5	357	0	0	0	0	0
	9:00 AM	0	114	2	2	190	0	0	0	0	10	0	6	324	0	0	0	0	0
	9:15 AM	0	112	3	2	177	0	0	0	0	7	0	3	304	0	1	0	0	1
	VOLUMES	0	895	308	85	1,738	0	0	0	0	308	0	114	3,448	0	1	0	0	1
	APPROACH %	0%	74%	26%	5%	95%	0%	0%	0%	0%	73%	0%	27%						
	APP/DEPART	1,203	/	1,010	1,823	/	2,046	0	/	392	422	/	0	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	453	287	77	931	0	0	0	0	273	0	94	2,115					
	APPROACH %	0%	61%	39%	8%	92%	0%	0%	0%	0%	74%	0%	26%						
	PEAK HR FACTOR		0.709			0.923			0.000			0.483		0.743					
	APP/DEPART	740	/	547	1,008	/	1,204	0	/	364	367	/	0	0					
MD	11:00 AM	0	142	10	2	159	0	0	0	0	4	0	3	320	0	0	0	0	0
	11:15 AM	0	176	4	2	170	0	0	0	0	9	0	2	363	0	0	0	0	0
	11:30 AM	0	169	7	2	195	0	0	0	0	13	0	3	389	0	0	0	0	0
	11:45 AM	0	172	7	2	198	0	0	0	0	6	0	1	386	0	1	0	0	1
	12:00 PM	0	206	12	2	163	0	0	0	0	4	0	4	391	0	0	0	0	0
	12:15 PM	0	191	4	1	174	0	0	0	0	8	0	2	380	0	0	0	0	0
	12:30 PM	0	217	11	2	189	0	0	0	0	7	0	1	427	0	1	0	0	1
	12:45 PM	0	191	7	4	179	0	0	0	0	4	0	2	387	0	0	0	0	0
	VOLUMES	0	1,464	62	17	1,427	0	0	0	0	55	0	18	3,043	0	2	0	0	2
	APPROACH %	0%	96%	4%	1%	99%	0%	0%	0%	0%	75%	0%	25%						
	APP/DEPART	1,526	/	1,484	1,444	/	1,482	0	/	77	73	/	0	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	0	805	34	9	705	0	0	0	0	23	0	9	1,585					
	APPROACH %	0%	96%	4%	1%	99%	0%	0%	0%	0%	72%	0%	28%						
	PEAK HR FACTOR		0.920			0.935			0.000			0.800		0.928					
	APP/DEPART	839	/	815	714	/	728	0	/	42	32	/	0	0					
PM	04:00 PM	0	304	24	12	209	0	0	0	0	31	0	7	587	0	0	0	0	0
	4:15 PM	0	264	26	15	211	0	0	0	0	20	0	12	548	0	0	0	0	0
	4:30 PM	0	262	21	8	194	0	0	0	0	20	0	9	514	0	0	0	0	0
	4:45 PM	0	320	32	13	215	0	0	0	0	38	0	14	632	0	0	0	0	0
	5:00 PM	0	317	15	9	188	0	0	0	0	24	0	6	559	0	0	0	0	0
	5:15 PM	0	324	35	8	211	0	0	0	0	14	0	7	599	0	0	0	0	0
	5:30 PM	0	302	31	5	186	0	0	0	0	27	0	12	563	0	0	0	0	0
	5:45 PM	0	238	31	5	162	0	0	0	0	9	0	4	449	0	0	0	0	0
	VOLUMES	0	2,331	215	75	1,576	0	0	0	0	183	0	71	4,451	0	0	0	0	0
	APPROACH %	0%	92%	8%	5%	95%	0%	0%	0%	0%	72%	0%	28%						
	APP/DEPART	2,546	/	2,402	1,651	/	1,759	0	/	290	254	/	0	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	1,263	113	35	800	0	0	0	0	103	0	39	2,353					
	APPROACH %	0%	92%	8%	4%	96%	0%	0%	0%	0%	73%	0%	27%						
	PEAK HR FACTOR		0.958			0.916			0.000			0.683		0.931					
	APP/DEPART	1,376	/	1,302	835	/	903	0	/	148	142	/	0	0					

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	7:45 AM	0	14	3	0	14	2	0	0	0	0	0	0	33
	8:00 AM	0	65	1	0	7	1	0	0	0	0	0	0	74
	8:15 AM	0	1	0	0	4	0	0	0	0	0	1	0	6
	8:30 AM	0	2	1	0	2	0	0	0	0	0	0	0	5
	8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	1	0	0	0	1	0	2
	TOTAL	0	83	5	0	28	4	1	0	0	0	2	0	123
MD	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	11:30 AM	0	0	0	0	0	1	2	0	0	0	0	0	3
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	12:30 PM	0	1	0	0	0	0	2	0	0	0	0	0	3
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	2	1	0	1	1	4	0	0	0	0	0	9
PM	4:00 PM	0	1	3	1	0	1	1	0	0	0	0	0	7
	4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	4	0	4	1	1	0	0	0	0	0	10
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	3
	5:30 PM	0	0	1	0	0	3	0	0	0	0	0	0	4
	5:45 PM	0	1	1	0	0	1	3	0	0	0	0	0	6
	TOTAL	0	3	9	1	4	9	5	0	0	0	0	0	31



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Tue, Apr 5, 16	LOCATION:	San Luis Obispo	PROJECT #:	SC0843
	NORTH & SOUTH:	Los Osos	LOCATION #:	74
	EAST & WEST:	Laguna	CONTROL:	SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

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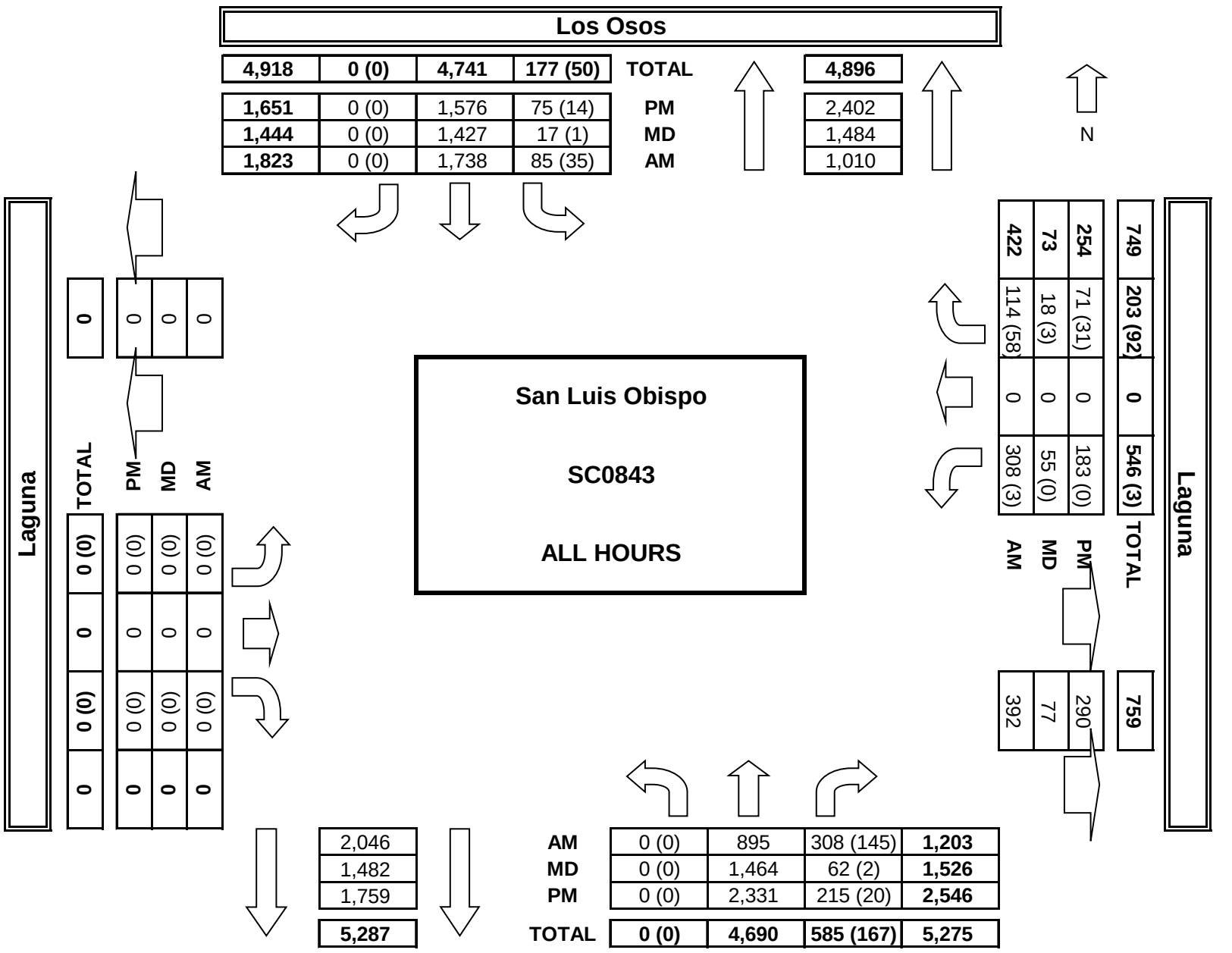
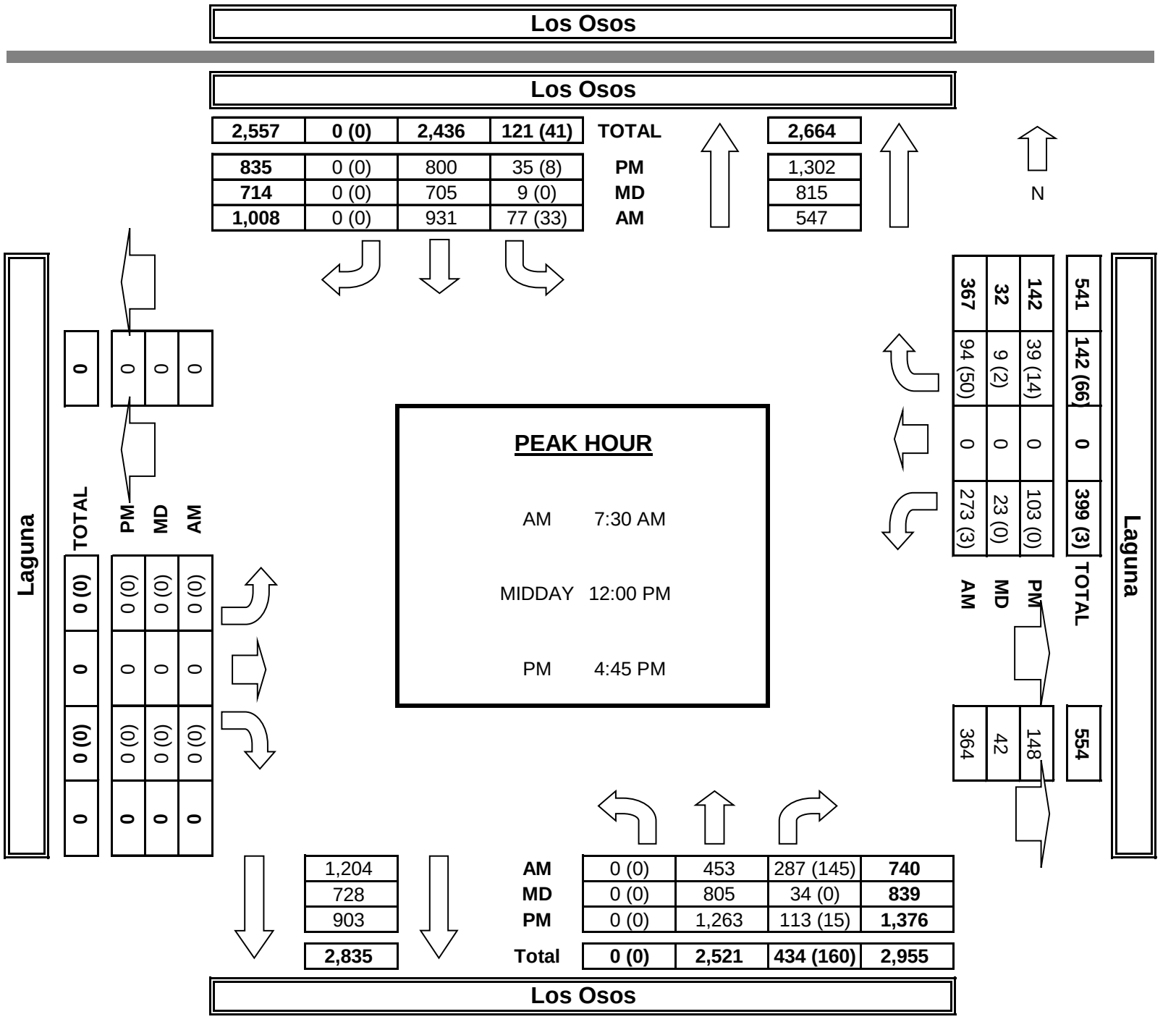
	NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Laguna			WESTBOUND Laguna			
LANES:	NL X	NT 2	NR 1	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 2	WT X	WR 1	TOTAL
AM													
7:30 AM	0	5	0	0	1	0	0	0	0	0	0	0	6
7:45 AM	0	10	1	0	1	0	0	0	0	0	0	0	12
8:00 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
8:15 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
8:30 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
9:00 AM	0	0	0	0	2	0	0	0	0	2	0	0	4
9:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
VOLUMES	0	20	1	0	11	0	0	0	0	2	0	0	34
APPROACH %	0%	95%	5%	0%	100%	0%	0%	0%	0%	100%	0%	0%	
APP/DEPART	21	/	20	11	/	13	0	/	1	2	/	0	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	0	16	1	0	6	0	0	0	0	0	0	0	23
APPROACH %	0%	94%	6%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.386			0.750			0.000			0.000		0.479
APP/DEPART	17	/	16	6	/	6	0	/	1	0	/	0	0
MD													
11:00 AM	0	7	0	0	0	0	0	0	0	0	0	0	7
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
11:45 AM	0	1	0	0	2	0	0	0	0	0	0	1	4
12:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
12:15 PM	0	2	0	0	2	0	0	0	0	0	0	0	4
12:30 PM	0	4	1	0	5	0	0	0	0	0	0	0	10
12:45 PM	0	2	0	0	4	0	0	0	0	0	0	0	6
VOLUMES	0	19	1	0	14	0	0	0	0	0	0	1	35
APPROACH %	0%	95%	5%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
APP/DEPART	20	/	20	14	/	14	0	/	1	1	/	0	0
BEGIN PEAK HR		12:00 PM											
VOLUMES	0	9	1	0	12	0	0	0	0	0	0	0	22
APPROACH %	0%	90%	10%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.500			0.600			0.000			0.000		0.550
APP/DEPART	10	/	9	12	/	12	0	/	1	0	/	0	0
PM													
04:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	0	1	0	2	0	0	0	0	0	0	1	4
5:00 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
5:30 PM	0	2	1	0	1	0	0	0	0	1	0	0	5
5:45 PM	0	3	0	0	2	0	0	0	0	0	1	0	6
VOLUMES	0	9	2	0	10	0	0	0	0	1	1	1	24
APPROACH %	0%	82%	18%	0%	100%	0%	0%	0%	0%	33%	33%	33%	
APP/DEPART	11	/	10	10	/	11	0	/	2	3	/	1	0
BEGIN PEAK HR		5:00 PM											
VOLUMES	0	7	1	0	6	0	0	0	0	1	1	0	16
APPROACH %	0%	88%	13%	0%	100%	0%	0%	0%	0%	50%	50%	0%	
PEAK HR FACTOR		0.667			0.750			0.000			0.500		0.667
APP/DEPART	8	/	7	6	/	7	0	/	1	2	/	1	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, Apr 5, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Oceanaire

PROJECT #: SC0843
LOCATION #: 75
CONTROL: STOP W

NOTES:

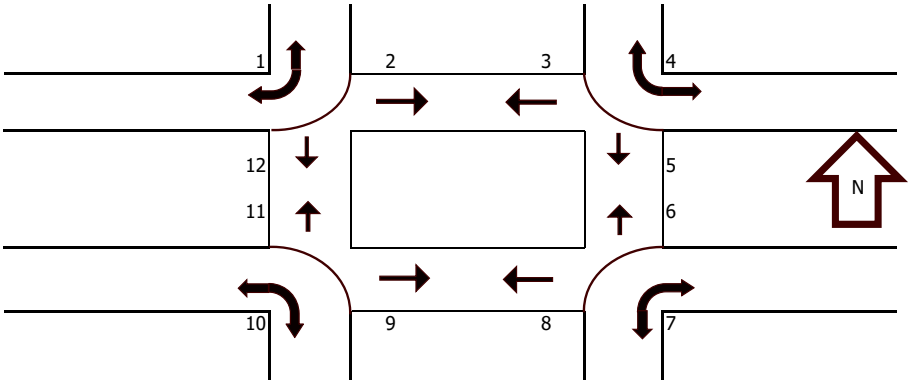
AM / PM / MD / OTHER / OTHER

N ▲ ◄ W E ► S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Oceanaire			WESTBOUND Oceanaire				U-TURNS				
	LANES:	NL X	NT 2.5	NR 0.5	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 0.5	WT X	WR 0.5	TOTAL	NB 0	SB 0	EB X	WB 0	TTL
AM	7:30 AM	0	139	9	8	249	0	0	0	0	8	0	9	422	0	0	0	0	0
	7:45 AM	0	198	12	16	301	0	0	0	0	3	0	7	537	0	1	0	0	1
	8:00 AM	0	254	16	30	326	0	0	0	0	1	0	18	645	0	0	0	0	0
	8:15 AM	0	104	37	33	237	0	0	0	0	9	0	17	437	0	0	0	0	0
	8:30 AM	0	113	9	8	224	0	0	0	0	7	0	17	378	0	0	0	0	0
	8:45 AM	0	125	3	4	238	0	0	0	0	1	0	7	378	0	0	0	0	0
	9:00 AM	0	108	5	1	173	0	0	0	0	1	0	2	290	0	0	0	0	0
	9:15 AM	0	99	7	6	175	0	0	0	0	2	0	0	289	0	0	0	0	0
	VOLUMES	0	1,140	98	106	1,923	0	0	0	0	32	0	77	3,376	0	1	0	0	1
	APPROACH %	0%	92%	8%	5%	95%	0%	0%	0%	0%	29%	0%	71%						
	APP/DEPART	1,238	/	1,218	2,029	/	1,955	0	/	203	109	/	0	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	695	74	87	1,113	0	0	0	0	21	0	51	2,041					
	APPROACH %	0%	90%	10%	7%	93%	0%	0%	0%	0%	29%	0%	71%						
	PEAK HR FACTOR		0.712			0.843			0.000			0.692		0.791					
	APP/DEPART	769	/	747	1,200	/	1,134	0	/	160	72	/	0	0					
MD	11:00 AM	0	165	8	6	188	0	0	0	0	3	0	5	375	0	0	0	0	0
	11:15 AM	0	167	1	2	152	0	0	0	0	6	0	5	333	0	0	0	0	0
	11:30 AM	0	158	6	11	184	0	0	0	0	4	0	13	376	0	0	0	0	0
	11:45 AM	0	159	9	8	193	0	0	0	0	0	0	13	382	0	0	0	0	0
	12:00 PM	0	206	8	10	189	0	0	0	0	5	0	9	427	0	0	0	0	0
	12:15 PM	0	193	5	3	164	0	0	0	0	4	0	9	378	0	0	0	0	0
	12:30 PM	0	209	4	9	172	0	0	0	0	1	0	10	405	0	0	0	0	0
	12:45 PM	0	202	3	1	181	0	0	0	0	0	0	11	398	0	0	0	0	0
	VOLUMES	0	1,459	44	50	1,423	0	0	0	0	23	0	75	3,074	0	0	0	0	0
	APPROACH %	0%	97%	3%	3%	97%	0%	0%	0%	0%	23%	0%	77%						
	APP/DEPART	1,503	/	1,534	1,473	/	1,446	0	/	94	98	/	0	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	0	810	20	23	706	0	0	0	0	10	0	39	1,608					
	APPROACH %	0%	98%	2%	3%	97%	0%	0%	0%	0%	20%	0%	80%						
	PEAK HR FACTOR		0.970			0.916			0.000			0.875		0.941					
	APP/DEPART	830	/	849	729	/	716	0	/	43	49	/	0	0					
PM	04:00 PM	0	289	15	10	224	0	0	0	0	2	0	24	564	0	0	0	0	0
	4:15 PM	1	282	11	9	206	0	0	0	0	5	0	15	529	1	0	0	0	1
	4:30 PM	0	280	11	10	199	0	0	0	0	4	0	19	523	0	0	0	0	0
	4:45 PM	0	334	12	15	225	0	0	0	0	3	0	12	601	0	0	0	0	0
	5:00 PM	2	302	6	8	209	0	0	0	0	6	0	7	540	2	0	0	0	2
	5:15 PM	2	352	13	14	212	0	0	0	0	4	0	21	618	2	0	0	0	2
	5:30 PM	0	336	14	3	212	0	0	0	0	5	0	18	588	0	0	0	0	0
	5:45 PM	0	258	10	0	185	0	0	0	0	5	0	5	463	0	0	0	0	0
	VOLUMES	5	2,433	92	69	1,672	0	0	0	0	34	0	121	4,426	5	0	0	0	5
	APPROACH %	0%	96%	4%	4%	96%	0%	0%	0%	0%	22%	0%	78%						
	APP/DEPART	2,530	/	2,554	1,741	/	1,711	0	/	161	155	/	0	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	4	1,324	45	40	858	0	0	0	0	18	0	58	2,347					
	APPROACH %	0%	96%	3%	4%	96%	0%	0%	0%	0%	24%	0%	76%						
	PEAK HR FACTOR		0.935			0.935			0.000			0.760		0.949					
	APP/DEPART	1,373	/	1,382	898	/	880	0	/	85	76	/	0	0					

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:30 AM	0	0	0	0	1	2	0	0	0	0	0	0	3
	7:45 AM	0	0	0	0	1	13	0	0	0	0	0	0	14
	8:00 AM	0	0	0	1	1	1	0	0	0	0	0	0	3
	8:15 AM	0	0	0	0	0	3	0	0	0	0	0	0	3
	8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	TOTAL	0	0	0	1	6	19	0	0	0	0	0	0	26
MD	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:30 AM	0	0	0	0	1	0	1	0	0	0	0	0	2
	11:45 AM	0	0	0	2	3	0	0	0	0	0	0	0	5
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	2	0	0	1	1	0	0	0	0	4
	12:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	2
	TOTAL	0	0	0	4	4	2	2	1	0	0	0	0	13
PM	4:00 PM	0	0	0	0	3	0	0	0	0	0	0	0	3
	4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	2
	4:45 PM	0	0	0	0	2	5	1	0	0	0	0	0	8
	5:00 PM	0	0	0	2	3	2	0	0	0	0	0	0	7
	5:15 PM	0	0	0	0	3	4	6	0	0	0	0	0	13
	5:30 PM	0	0	0	3	0	0	0	0	0	0	0	0	3
	5:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	2
	TOTAL	0	0	0	5	11	14	9	0	0	0	0	0	39



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	San Luis Obispo	PROJECT #:	SC0843
Tue, Apr 5, 16	NORTH & SOUTH:	Los Osos	LOCATION #:	75
	EAST & WEST:	Oceanaire	CONTROL:	STOP W

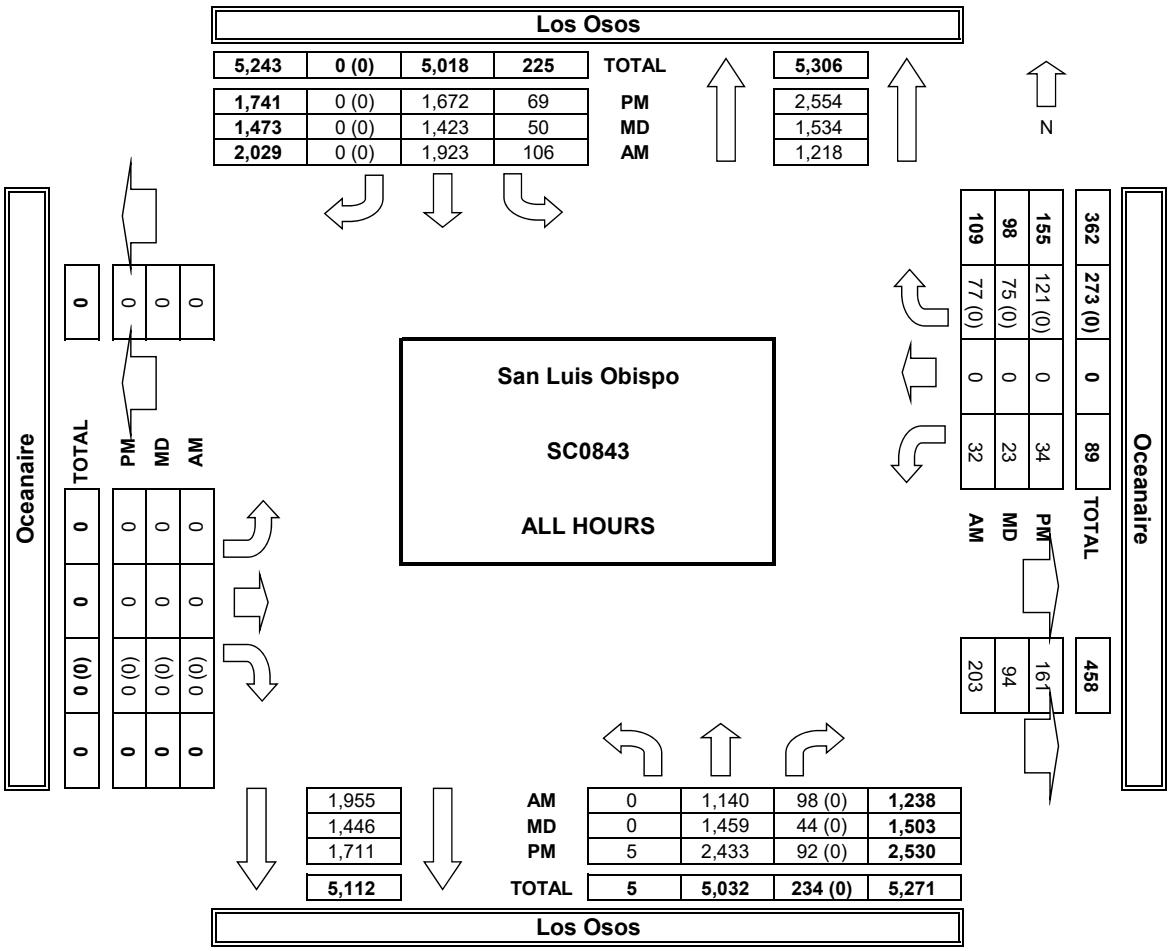
NOTES:

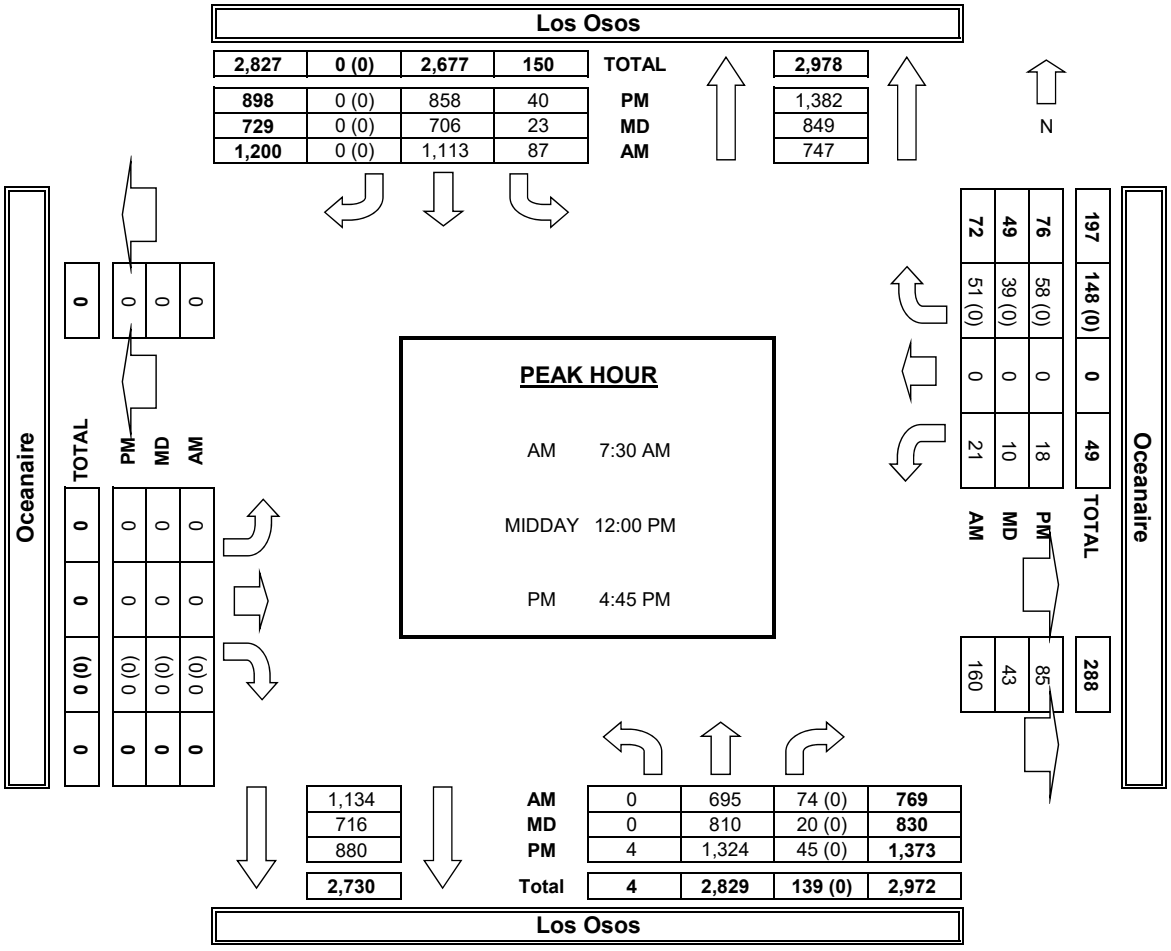
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Oceanaire			WESTBOUND Oceanaire			
	LANES:	NL X	NT 2.5	NR 0.5	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 0.5	WT X	WR 0.5	TOTAL
AM	7:30 AM	0	1	0	0	2	0	0	0	0	0	0	2	5
	7:45 AM	0	8	0	1	0	0	0	0	0	0	0	0	9
	8:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	8:15 AM	0	0	0	1	1	0	0	0	0	0	0	0	2
	8:30 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	9:00 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
	9:15 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
	VOLUMES	0	11	0	2	14	0	0	0	0	0	0	2	29
	APPROACH %	0%	100%	0%	13%	88%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	11	/	13	16	/	14	0	/	2	2	/	0	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	9	0	2	5	0	0	0	0	0	0	2	18
	APPROACH %	0%	100%	0%	29%	71%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.281			0.875			0.000			0.250		0.500
	APP/DEPART	9	/	11	7	/	5	0	/	2	2	/	0	0
MD	11:00 AM	0	6	0	0	0	0	0	0	0	0	0	0	6
	11:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	11:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
	11:45 AM	0	0	0	0	2	0	0	0	0	0	0	1	3
	12:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	12:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	3
	12:30 PM	0	1	0	2	2	0	0	0	0	0	0	0	5
	12:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	4
	VOLUMES	0	13	0	3	8	0	0	0	0	0	0	1	25
	APPROACH %	0%	100%	0%	27%	73%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	13	/	14	11	/	8	0	/	3	1	/	0	0
	BEGIN PEAK HR		12:00 PM											
	VOLUMES	0	5	0	3	5	0	0	0	0	0	0	0	13
	APPROACH %	0%	100%	0%	38%	63%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.625			0.500			0.000			0.000		0.650
	APP/DEPART	5	/	5	8	/	5	0	/	3	0	/	0	0
PM	04:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	2
	4:45 PM	0	0	0	1	3	0	0	0	0	0	0	0	4
	5:00 PM	0	1	1	1	1	0	0	0	0	1	0	0	5
	5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	5:30 PM	0	0	0	0	3	0	0	0	0	0	0	1	4
	5:45 PM	0	3	0	1	3	0	0	0	0	0	0	2	9
	VOLUMES	0	6	1	4	12	0	0	0	0	1	0	3	27
	APPROACH %	0%	86%	14%	25%	75%	0%	0%	0%	0%	25%	0%	75%	
	APP/DEPART	7	/	9	16	/	13	0	/	5	4	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	5	1	2	8	0	0	0	0	1	0	3	20
	APPROACH %	0%	83%	17%	20%	80%	0%	0%	0%	0%	25%	0%	75%	
	PEAK HR FACTOR		0.500			0.625			0.000			0.500		0.556
	APP/DEPART	6	/	8	10	/	9	0	/	3	4	/	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, Apr 5, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Royal

PROJECT #: SC0843
LOCATION #: 76
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Royal			WESTBOUND Royal				U-TURNS				
	LANES:	NL 1	NT 2.5	NR 0.5	SL 1	ST 2	SR 0	EL 0.5	ET 0.5	ER 1	WL 0.5	WT 0.5	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:30 AM	13	157	3	0	235	5	7	2	29	15	2	1	469	0	0	0	0	0
	7:45 AM	11	207	4	5	308	5	6	2	19	15	1	2	585	0	0	0	0	0
	8:00 AM	11	235	9	4	330	7	18	4	21	15	5	1	660	0	0	0	0	0
	8:15 AM	8	136	8	4	230	3	5	5	24	33	6	2	464	0	0	0	0	0
	8:30 AM	16	106	1	4	230	1	7	1	16	16	6	0	404	0	0	0	0	0
	8:45 AM	8	124	4	0	220	3	3	1	25	13	0	0	401	0	0	0	0	0
	9:00 AM	9	102	1	1	170	2	2	2	14	8	1	2	314	0	0	0	0	0
	9:15 AM	12	108	2	0	172	5	5	1	14	3	1	0	323	0	0	0	0	0
	VOLUMES	88	1,175	32	18	1,895	31	53	18	162	118	22	8	3,620	0	0	0	0	0
	APPROACH %	7%	91%	2%	1%	97%	2%	23%	8%	70%	80%	15%	5%						
	APP/DEPART	1,295	/	1,236	1,944	/	2,175	233	/	68	148	/	141	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	43	735	24	13	1,103	20	36	13	93	78	14	6	2,178					
	APPROACH %	5%	92%	3%	1%	97%	2%	25%	9%	65%	80%	14%	6%						
	PEAK HR FACTOR		0.786			0.833			0.826			0.598		0.825					
	APP/DEPART	802	/	777	1,136	/	1,274	142	/	50	98	/	77	0					
MD	11:00 AM	12	158	3	1	166	3	3	3	16	4	4	0	373	1	0	0	0	1
	11:15 AM	14	175	5	1	156	1	0	1	15	14	0	2	384	0	0	0	0	0
	11:30 AM	12	149	1	1	174	1	6	2	13	9	2	2	372	1	0	0	0	1
	11:45 AM	13	162	12	1	209	2	2	3	6	10	3	4	427	0	0	0	0	0
	12:00 PM	14	209	10	2	190	4	5	0	20	7	3	2	466	0	0	0	0	0
	12:15 PM	19	187	9	5	172	4	1	1	18	5	2	0	423	0	0	0	0	0
	12:30 PM	21	204	10	4	167	2	7	1	14	5	1	3	439	0	0	0	0	0
	12:45 PM	17	213	7	0	169	3	1	3	31	6	1	1	452	1	0	0	0	1
	VOLUMES	122	1,457	57	15	1,403	20	25	14	133	60	16	14	3,336	3	0	0	0	3
	APPROACH %	7%	89%	3%	1%	98%	1%	15%	8%	77%	67%	18%	16%						
	APP/DEPART	1,636	/	1,496	1,438	/	1,599	172	/	86	90	/	155	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	71	813	36	11	698	13	14	5	83	23	7	6	1,780					
	APPROACH %	8%	88%	4%	2%	97%	2%	14%	5%	81%	64%	19%	17%						
	PEAK HR FACTOR		0.970			0.921			0.729			0.750		0.955					
	APP/DEPART	920	/	833	722	/	805	102	/	52	36	/	90	0					
PM	04:00 PM	17	308	13	3	226	5	12	2	14	10	7	2	619	0	0	0	0	0
	4:15 PM	28	287	8	2	216	11	2	0	20	12	3	5	594	0	0	0	0	0
	4:30 PM	19	294	7	0	194	6	2	1	19	5	4	3	554	0	0	0	0	0
	4:45 PM	23	309	14	3	227	4	5	0	10	14	3	6	618	0	0	0	0	0
	5:00 PM	30	316	14	2	201	7	9	1	17	10	4	10	621	0	0	0	0	0
	5:15 PM	35	368	9	4	211	4	4	1	17	7	5	4	669	1	1	0	0	2
	5:30 PM	28	329	16	4	203	4	3	2	19	7	2	5	622	0	0	0	0	0
	5:45 PM	35	268	17	5	158	1	2	1	11	8	1	3	510	0	0	0	0	0
	VOLUMES	215	2,479	98	23	1,636	42	39	8	127	73	29	38	4,807	1	1	0	0	2
	APPROACH %	8%	89%	4%	1%	96%	2%	22%	5%	73%	52%	21%	27%						
	APP/DEPART	2,792	/	2,557	1,701	/	1,837	174	/	128	140	/	285	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	116	1,322	53	13	842	19	21	4	63	38	14	25	2,530					
	APPROACH %	8%	89%	4%	1%	96%	2%	24%	5%	72%	49%	18%	32%						
	PEAK HR FACTOR		0.905			0.934			0.815			0.802		0.945					
	APP/DEPART	1,491	/	1,369	874	/	944	88	/	69	77	/	148	0					

Los Osos

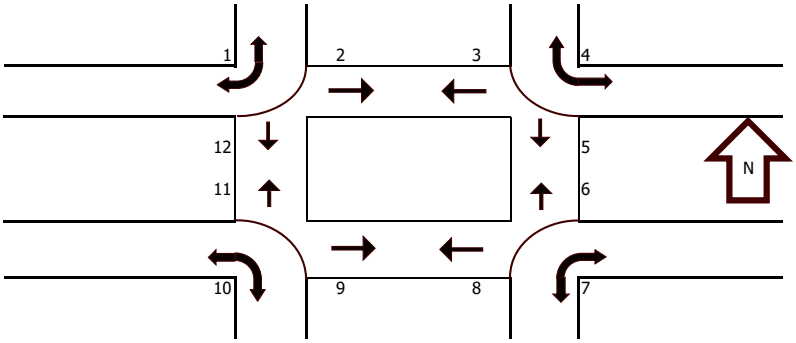
NORTH SIDE

Royal WEST SIDE EAST SIDE **Royal**

SOUTH SIDE

Los Osos

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:30 AM	0	3	0	0	0	0	0	0	0	0	0	1	4
	7:45 AM	0	19	1	0	0	6	0	0	0	0	2	3	31
	8:00 AM	0	9	4	0	2	3	0	0	0	0	2	0	20
	8:15 AM	0	6	3	0	0	3	0	0	0	0	0	0	12
	8:30 AM	1	2	6	0	1	2	0	0	0	0	1	0	13
	8:45 AM	0	0	1	0	1	1	0	0	0	0	0	0	3
	9:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	9:15 AM	0	3	0	0	2	0	0	0	0	0	0	0	5
	TOTAL	1	42	16	0	6	15	0	0	0	0	5	4	89
MD	11:00 AM	0	2	1	0	0	0	0	0	0	0	1	1	5
	11:15 AM	0	1	3	0	0	3	0	0	0	0	1	0	8
	11:30 AM	0	5	4	0	0	1	0	0	0	0	0	1	11
	11:45 AM	0	1	9	0	0	0	1	0	1	0	0	0	12
	12:00 PM	0	2	2	0	0	2	0	0	0	0	5	0	11
	12:15 PM	1	2	1	0	2	2	0	0	0	0	0	4	12
	12:30 PM	0	5	4	0	5	1	0	0	0	0	0	1	16
	12:45 PM	0	0	1	0	0	3	0	0	0	0	0	0	4
	TOTAL	1	18	25	0	7	12	1	0	1	0	7	7	79
PM	4:00 PM	0	4	4	0	6	2	1	0	0	0	0	0	17
	4:15 PM	0	2	2	0	0	3	0	0	0	0	2	0	9
	4:30 PM	3	3	3	0	2	7	0	0	0	0	0	0	18
	4:45 PM	0	6	3	0	2	2	1	0	0	0	1	2	17
	5:00 PM	0	2	0	0	7	4	0	0	0	0	0	0	13
	5:15 PM	0	2	3	0	3	4	0	0	0	0	0	0	12
	5:30 PM	0	0	2	0	0	1	0	0	0	0	0	0	3
	5:45 PM	0	0	1	0	1	2	0	0	0	0	0	0	4
	TOTAL	3	19	18	0	21	25	2	0	0	0	3	2	93



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	San Luis Obispo	PROJECT #:	SC0843
Tue, Apr 5, 16	NORTH & SOUTH:	Los Osos	LOCATION #:	76
	EAST & WEST:	Royal	CONTROL:	SIGNAL

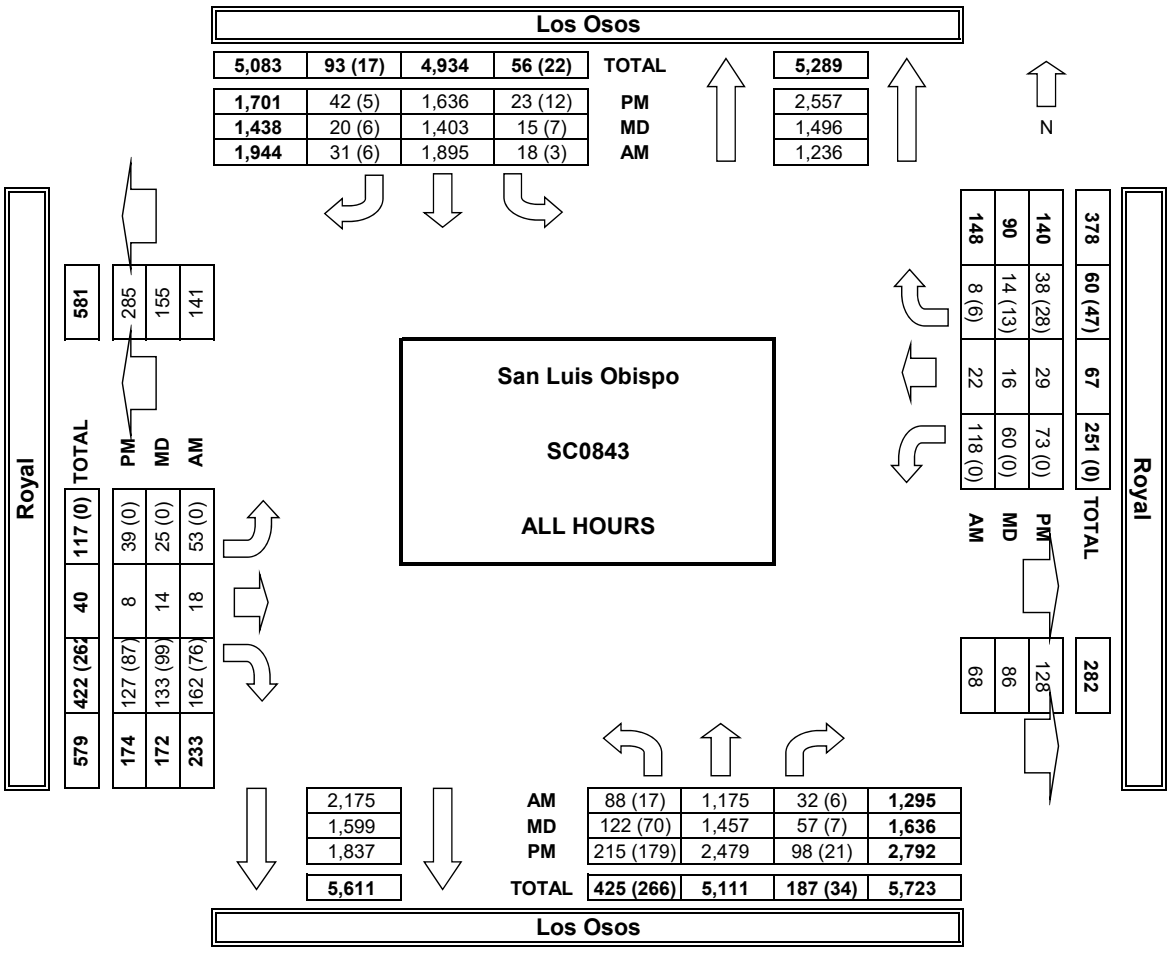
NOTES:

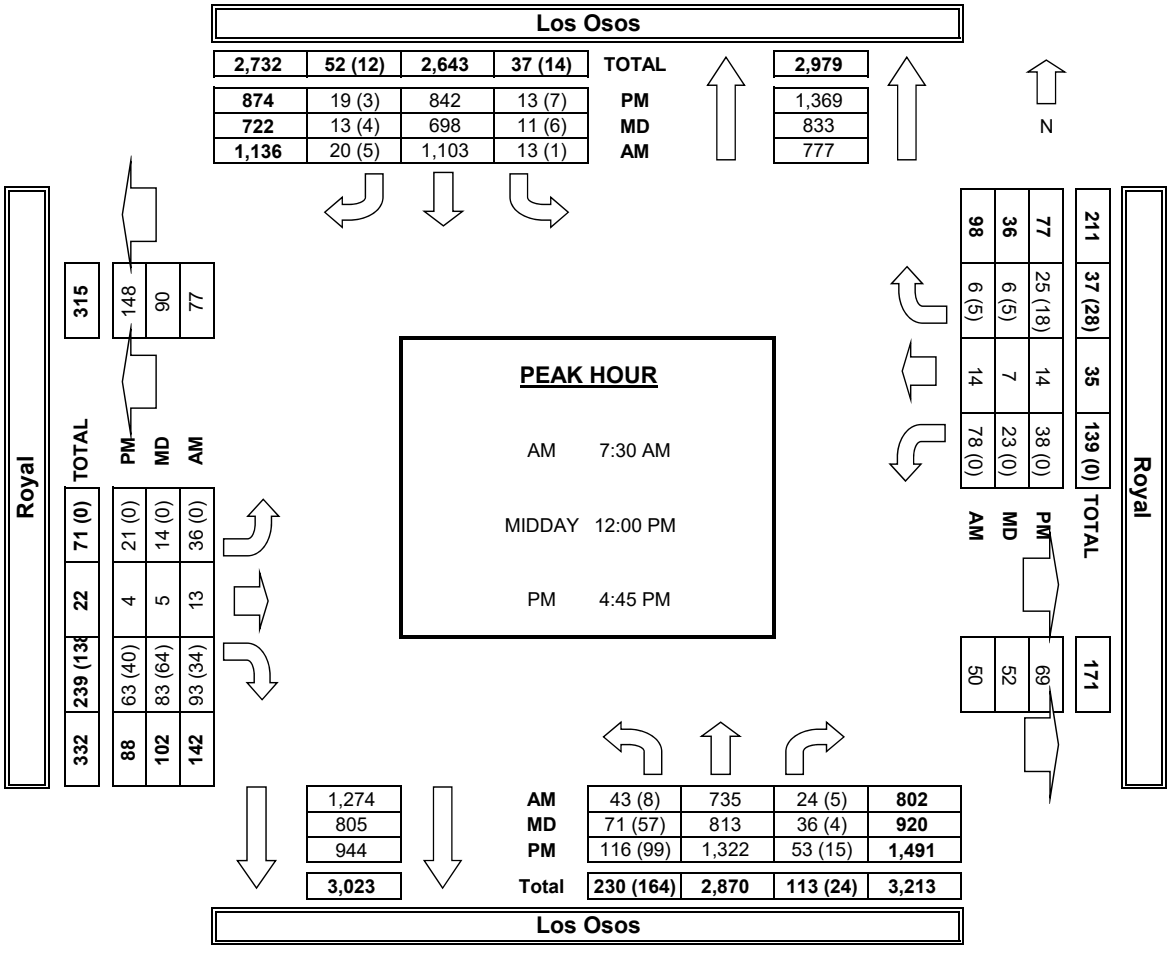
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Royal			WESTBOUND Royal			
	LANES:	NL 1	NT 2.5	NR 0.5	SL 1	ST 2	SR 0	EL 0.5	ET 0.5	ER 1	WL 0.5	WT 0.5	WR 1	TOTAL
AM	7:30 AM	0	0	0	0	1	0	0	0	0	1	0	0	2
	7:45 AM	0	0	0	0	1	0	3	2	1	1	0	0	8
	8:00 AM	0	0	0	0	2	0	0	2	0	0	0	0	4
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	2	0	0	2	2	0	0	0	0	0	0	6
	8:45 AM	0	0	0	0	1	0	0	0	0	1	0	0	2
	9:00 AM	0	1	0	0	3	1	0	0	0	0	0	0	5
	9:15 AM	0	1	0	0	0	0	0	0	1	0	0	0	2
	VOLUMES	0	4	0	0	10	3	3	4	2	3	0	0	29
	APPROACH %	0%	100%	0%	0%	77%	23%	33%	44%	22%	100%	0%	0%	
	APP/DEPART	4	/	7	13	/	15	9	/	4	3	/	3	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	2	0	0	5	2	3	4	1	1	0	0	18
	APPROACH %	0%	100%	0%	0%	71%	29%	38%	50%	13%	100%	0%	0%	
	PEAK HR FACTOR		0.250			0.438			0.333			0.250		0.563
	APP/DEPART	2	/	5	7	/	7	8	/	4	1	/	2	0
MD	11:00 AM	0	5	0	0	0	0	1	0	0	0	0	0	6
	11:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	11:30 AM	0	2	0	0	0	0	0	0	0	0	1	0	3
	11:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	2
	12:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	12:15 PM	0	0	1	0	2	0	0	0	0	0	0	0	3
	12:30 PM	0	1	0	0	3	0	1	0	0	0	0	0	5
	12:45 PM	0	2	0	0	2	1	0	0	0	0	0	0	5
	VOLUMES	0	12	1	0	9	1	2	1	0	0	1	0	27
	APPROACH %	0%	92%	8%	0%	90%	10%	67%	33%	0%	0%	100%	0%	
	APP/DEPART	13	/	14	10	/	9	3	/	2	1	/	2	0
	BEGIN PEAK HR		12:00 PM											
	VOLUMES	0	5	1	0	7	1	1	0	0	0	0	0	15
	APPROACH %	0%	83%	17%	0%	88%	13%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.667			0.250			0.000		0.750
	APP/DEPART	6	/	6	8	/	7	1	/	1	0	/	1	0
PM	04:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	1	1	0	0	0	1	0	0	1	0	0	4
	4:45 PM	0	0	1	0	2	0	0	0	0	0	0	0	3
	5:00 PM	0	2	1	0	2	0	0	0	0	0	0	0	5
	5:15 PM	1	2	0	0	1	0	0	0	0	0	1	0	5
	5:30 PM	0	0	0	0	1	1	0	0	0	1	0	0	3
	5:45 PM	0	4	0	0	4	0	0	0	0	1	0	0	9
	VOLUMES	1	11	3	0	11	1	1	0	0	3	1	0	32
	APPROACH %	7%	73%	20%	0%	92%	8%	100%	0%	0%	75%	25%	0%	
	APP/DEPART	15	/	12	12	/	14	1	/	3	4	/	3	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	1	8	1	0	8	1	0	0	0	2	1	0	22
	APPROACH %	10%	80%	10%	0%	89%	11%	0%	0%	0%	67%	33%	0%	
	PEAK HR FACTOR		0.625			0.563			0.000			0.750		0.611
	APP/DEPART	10	/	8	9	/	10	0	/	1	3	/	3	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Mar 16, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Madonna

PROJECT #: SC0843
LOCATION #: 89
CONTROL: SIGNAL

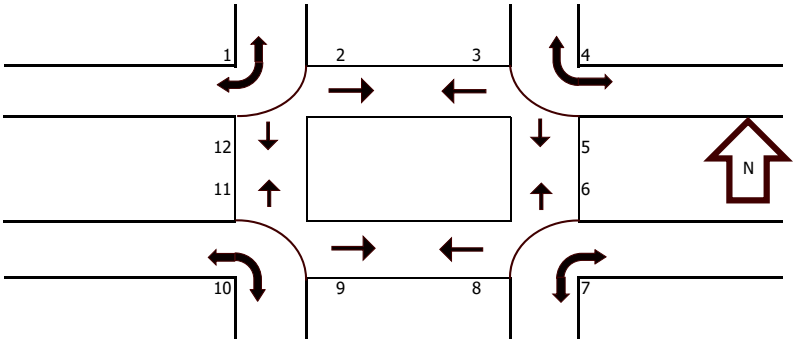
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND (Los Osos)			SOUTHBOUND (Los Osos)			EASTBOUND (Madonna)			WESTBOUND (Madonna)				U-TURNS				
	LANES:	NL 1	NT 3	NR 1	SL 2	ST 1.5	SR 0.5	EL 1	ET 0.5	ER 0.5	WL 2	WT 0.5	WR 1.5	TOTAL	NB 0	SB X	EB 0	WB X	TTL
AM	7:00 AM	8	57	16	57	86	2	8	18	6	18	6	27	309	0	0	0	0	0
	7:15 AM	2	61	17	85	148	5	12	17	3	22	8	27	407	0	0	0	0	0
	7:30 AM	10	91	17	123	161	1	26	30	6	22	14	35	536	1	0	0	0	1
	7:45 AM	13	119	40	136	204	10	17	26	7	19	19	94	704	1	0	0	0	1
	8:00 AM	8	133	36	123	224	12	48	25	10	23	10	89	741	0	0	0	0	0
	8:15 AM	12	90	36	105	155	14	28	35	7	48	15	38	583	0	0	0	0	0
	8:30 AM	8	79	40	113	184	18	11	31	10	35	16	32	577	0	0	0	0	0
	8:45 AM	11	80	39	103	179	11	14	33	8	39	14	45	576	0	0	0	0	0
	VOLUMES	72	710	241	845	1,341	73	164	215	57	226	102	387	4,433	2	0	0	0	2
	APPROACH %	7%	69%	24%	37%	59%	3%	38%	49%	13%	32%	14%	54%						
	APP/DEPART	1,023	/	1,261	2,259	/	1,626	436	/	1,301	715	/	245	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	41	421	152	477	767	54	104	117	34	125	60	253	2,605					
	APPROACH %	7%	69%	25%	37%	59%	4%	41%	46%	13%	29%	14%	58%						
	PEAK HR FACTOR		0.867			0.904			0.768			0.830		0.879					
	APP/DEPART	614	/	778	1,298	/	927	255	/	746	438	/	154	0					
MD	11:30 AM	14	131	94	61	134	3	11	13	0	91	16	53	621	5	0	0	0	5
	11:45 AM	13	169	96	63	134	9	13	16	5	114	15	51	698	1	0	0	0	1
	12:00 PM	23	138	118	57	154	5	9	13	10	134	27	71	759	2	0	0	0	2
	12:15 PM	19	172	117	60	124	11	12	19	7	112	17	53	723	2	0	0	0	2
	12:30 PM	13	159	105	65	117	7	15	16	7	91	15	65	675	0	0	0	0	0
	12:45 PM	15	124	104	65	139	10	14	22	9	126	19	79	726	1	0	0	0	1
	1:00 PM	16	120	96	54	118	4	13	28	11	111	18	62	651	1	0	0	0	1
	1:15 PM	14	115	93	49	112	3	8	22	4	130	21	59	630	1	0	0	0	1
	VOLUMES	127	1,128	823	474	1,032	52	95	149	53	909	148	493	5,483	13	0	0	0	13
	APPROACH %	6%	54%	40%	30%	66%	3%	32%	50%	18%	59%	10%	32%						
	APP/DEPART	2,078	/	1,716	1,558	/	2,007	297	/	1,446	1,550	/	314	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	70	593	444	247	534	33	50	70	33	463	78	268	2,883					
	APPROACH %	6%	54%	40%	30%	66%	4%	33%	46%	22%	57%	10%	33%						
	PEAK HR FACTOR		0.899			0.942			0.850			0.872		0.950					
	APP/DEPART	1,107	/	911	814	/	1,035	153	/	761	809	/	176	0					
PM	03:30 PM	22	207	108	83	143	13	14	18	7	99	29	62	805	1	0	0	0	1
	3:45 PM	18	193	66	68	126	8	11	21	12	106	34	78	741	1	0	0	0	1
	4:00 PM	21	207	87	75	135	10	10	19	10	98	25	108	805	3	0	0	0	3
	4:15 PM	16	252	82	80	168	14	18	16	13	91	24	79	853	1	0	0	0	1
	4:30 PM	28	251	91	91	150	5	16	32	10	97	28	93	892	1	0	0	0	1
	4:45 PM	32	237	74	79	161	12	10	16	12	94	40	99	866	2	0	0	0	2
	5:00 PM	29	231	69	75	148	12	13	17	7	77	34	97	809	3	0	0	0	3
	5:15 PM	28	186	61	64	127	4	11	22	6	89	30	72	700	6	0	0	0	6
	VOLUMES	194	1,764	638	615	1,158	78	103	161	77	751	244	688	6,471	18	0	0	0	18
	APPROACH %	7%	68%	25%	33%	63%	4%	30%	47%	23%	45%	14%	41%						
	APP/DEPART	2,596	/	2,555	1,851	/	2,004	341	/	1,414	1,683	/	498	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	105	971	316	325	627	43	57	81	42	359	126	368	3,420					
	APPROACH %	8%	70%	23%	33%	63%	4%	32%	45%	23%	42%	15%	43%						
	PEAK HR FACTOR		0.941			0.949			0.776			0.915		0.959					
	APP/DEPART	1,392	/	1,396	995	/	1,035	180	/	722	853	/	267	0					

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	2
	7:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	2
	7:30 AM	0	2	1	0	2	0	0	0	0	3	0	0	8
	7:45 AM	0	3	1	0	4	1	0	1	0	0	3	2	15
	8:00 AM	0	2	1	0	5	2	0	0	0	1	0	0	11
	8:15 AM	0	2	0	0	0	4	0	2	2	1	0	1	12
	8:30 AM	0	0	3	0	0	0	0	0	0	0	0	0	3
	8:45 AM	0	3	7	0	1	1	0	2	1	2	4	0	21
	TOTAL	0	12	14	0	12	9	0	5	3	9	7	3	74
MD	11:30 AM	0	2	5	0	7	7	0	0	1	0	0	0	22
	11:45 AM	0	2	1	0	0	4	0	0	0	0	1	0	8
	12:00 PM	0	2	1	0	1	0	0	0	0	0	2	0	6
	12:15 PM	0	3	1	0	0	0	0	0	1	0	0	0	5
	12:30 PM	0	5	0	0	0	0	0	0	1	0	1	0	7
	12:45 PM	0	5	2	0	0	2	0	0	2	1	2	0	14
	1:00 PM	0	1	0	0	2	0	0	2	0	1	1	0	7
	1:15 PM	0	1	1	0	0	0	0	0	0	0	3	0	5
	TOTAL	0	21	11	0	10	13	0	2	5	2	10	0	74
PM	3:30 PM	0	6	4	0	1	3	0	2	1	0	0	0	17
	3:45 PM	0	3	3	0	0	2	0	0	1	0	0	0	9
	4:00 PM	0	3	2	0	0	1	0	0	0	0	3	1	10
	4:15 PM	0	3	2	0	0	0	0	0	3	0	1	2	11
	4:30 PM	0	2	5	0	1	1	0	0	0	0	2	0	11
	4:45 PM	0	2	1	0	0	2	0	0	0	0	2	1	8
	5:00 PM	0	3	2	0	0	0	0	0	0	0	0	0	5
	5:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	TOTAL	0	22	19	0	2	9	0	4	5	0	8	4	73



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Mar 16, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Madonna

PROJECT #: SC0843
LOCATION #: 89
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER

▲ N
◄ W E ►
S ▼

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Madonna			WESTBOUND Madonna			
	LANES:	NL 1	NT 3	NR 1	SL 2	ST 1.5	SR 0.5	EL 1	ET 0.5	ER 0.5	WL 2	WT 0.5	WR 1.5	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
	7:15 AM	0	0	0	1	1	0	0	2	0	0	0	0	4
	7:30 AM	0	1	0	0	3	1	0	0	0	0	0	0	5
	7:45 AM	0	2	0	0	2	0	0	3	0	0	0	0	7
	8:00 AM	0	0	0	2	2	0	1	2	0	0	1	0	8
	8:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	0	2	0	0	0	0	1	1	0	4
	8:45 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
	VOLUMES	0	3	0	4	13	1	1	7	0	2	2	0	33
	APPROACH %	0%	100%	0%	22%	72%	6%	13%	88%	0%	50%	50%	0%	
	APP/DEPART	3	/	4	18	/	15	8	/	11	4	/	3	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	3	0	3	8	1	1	7	0	0	1	0	24
	APPROACH %	0%	100%	0%	25%	67%	8%	13%	88%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.375			0.750			0.667			0.250		0.750
	APP/DEPART	3	/	4	12	/	8	8	/	10	1	/	2	0
MD	11:30 AM	0	2	0	0	4	0	0	0	0	0	0	0	6
	11:45 AM	0	1	0	0	1	0	0	1	0	0	1	0	4
	12:00 PM	0	1	1	0	2	0	0	1	0	0	0	0	5
	12:15 PM	0	2	0	0	0	0	0	0	0	0	1	0	3
	12:30 PM	0	2	0	0	0	0	1	1	0	0	1	0	5
	12:45 PM	0	0	0	0	0	0	0	1	1	0	2	0	4
	1:00 PM	0	1	0	0	1	0	0	0	1	0	0	0	3
	1:15 PM	0	0	0	0	3	0	1	1	0	0	1	0	6
	VOLUMES	0	9	1	0	11	0	2	5	2	0	6	0	36
	APPROACH %	0%	90%	10%	0%	100%	0%	22%	56%	22%	0%	100%	0%	
	APP/DEPART	10	/	11	11	/	13	9	/	6	6	/	6	0
	BEGIN PEAK HR		11:30 AM											
	VOLUMES	0	3	0	0	4	0	2	3	2	0	4	0	18
	APPROACH %	0%	100%	0%	0%	100%	0%	29%	43%	29%	0%	100%	0%	
	PEAK HR FACTOR		0.375			0.250			0.875			0.500		0.750
	APP/DEPART	3	/	5	4	/	6	7	/	3	4	/	4	0
PM	03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
	4:00 PM	0	1	0	0	1	0	2	3	0	1	1	0	9
	4:15 PM	0	2	0	0	3	0	0	0	0	0	2	1	8
	4:30 PM	0	2	0	0	0	0	0	1	0	0	2	0	5
	4:45 PM	0	3	0	0	0	0	1	1	0	1	1	0	7
	5:00 PM	0	0	0	0	1	0	0	1	0	1	5	0	8
	5:15 PM	1	1	0	0	2	0	1	1	0	2	2	0	10
	VOLUMES	1	9	0	0	7	0	5	7	0	5	13	1	48
	APPROACH %	10%	90%	0%	0%	100%	0%	42%	58%	0%	26%	68%	5%	
	APP/DEPART	10	/	15	7	/	12	12	/	7	19	/	14	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	1	6	0	0	3	0	2	4	0	4	10	0	30
	APPROACH %	14%	86%	0%	0%	100%	0%	33%	67%	0%	29%	71%	0%	
	PEAK HR FACTOR		0.583			0.375			0.750			0.583		0.750
	APP/DEPART	7	/	8	3	/	7	6	/	4	14	/	11	0

Los Osos

NORTH SIDE

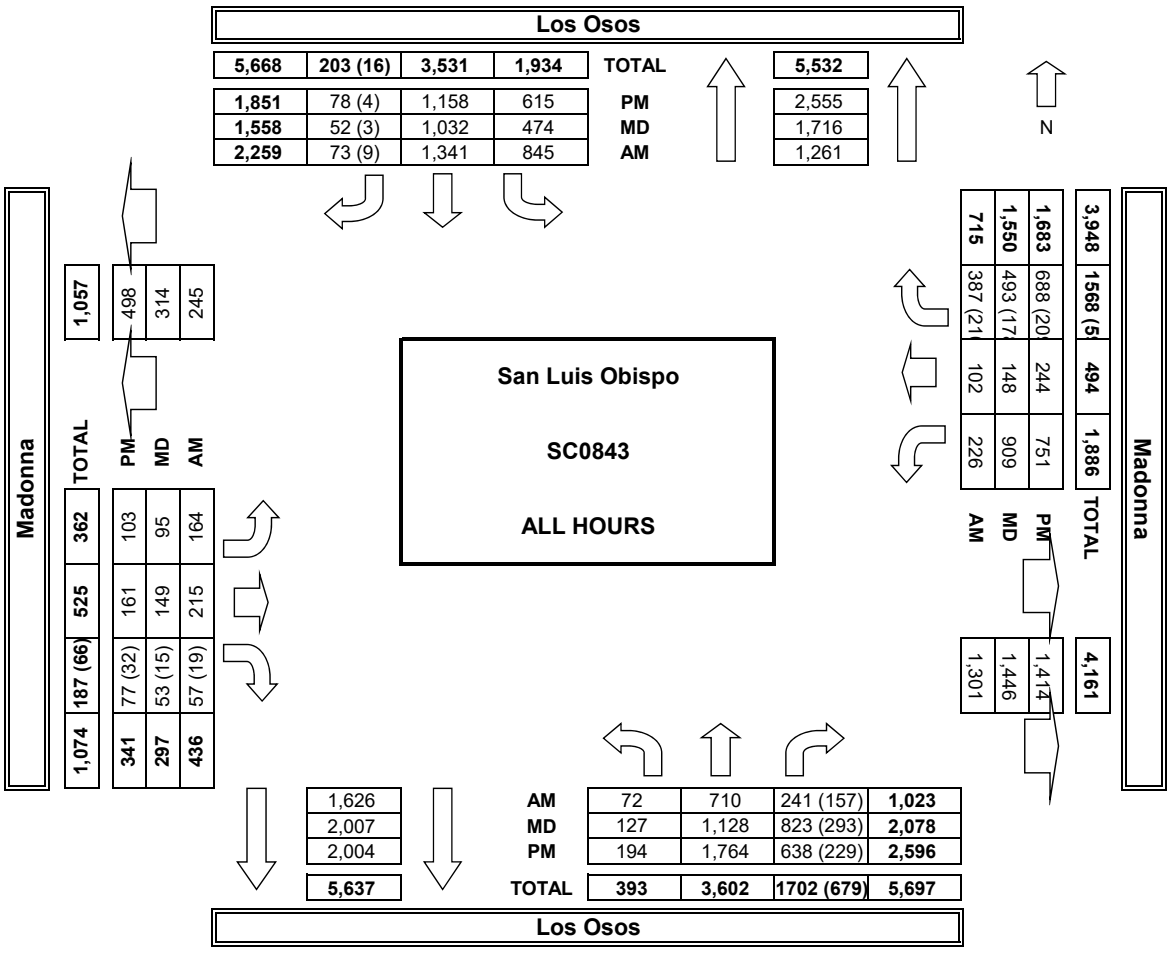
Madonna WEST SIDE EAST SIDE **Madonna**

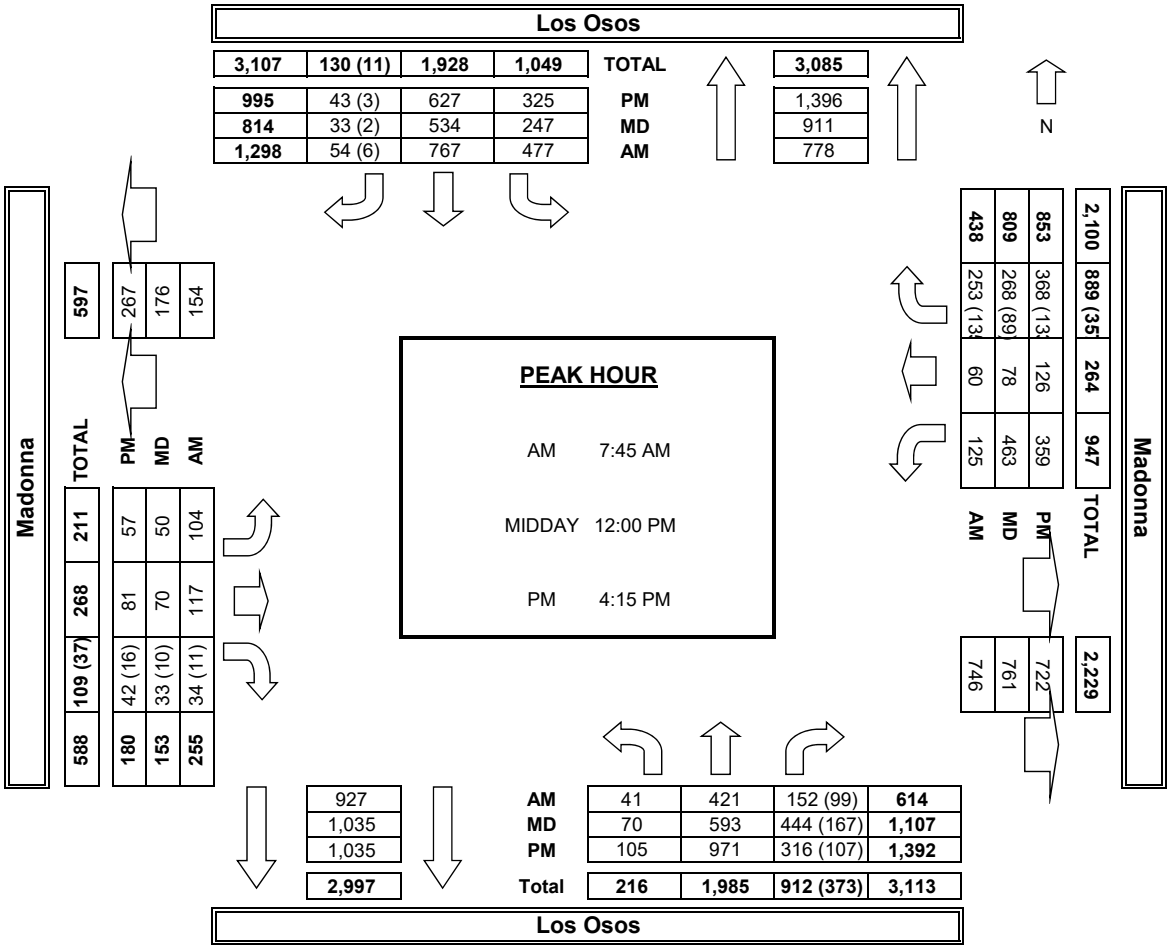
SOUTH SIDE

Los Osos

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, Apr 5, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Froom Rnch

PROJECT #: SC0843
LOCATION #: 78
CONTROL: SIGNAL

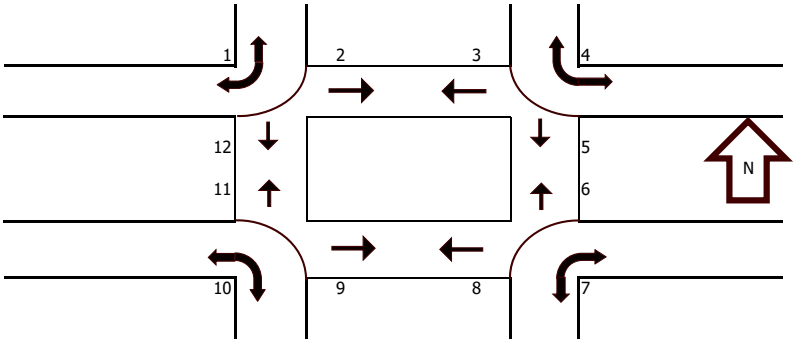
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

Add U-Turns to Left Turns

		NORTHBOUND (Los Osos)			SOUTHBOUND (Los Osos)			EASTBOUND (Froom Rnch)			WESTBOUND (Froom Rnch)				U-TURNS				
	LANES:	NL 2	NT 2.5	NR 0.5	SL 2	ST 2.5	SR 0.5	EL 2	ET 0.5	ER 0.5	WL 1	WT 1	WR 1	TOTAL	NB 0	SB X	EB X	WB X	TTL
AM	7:30 AM	30	130	2	5	163	17	19	0	22	5	2	1	396	3	0	0	0	3
	7:45 AM	45	162	3	8	203	28	15	0	10	4	0	3	481	4	1	0	0	5
	8:00 AM	54	135	2	5	172	40	27	2	23	21	1	6	488	6	0	0	2	8
	8:15 AM	41	97	1	11	197	26	17	7	17	12	1	8	435	8	1	0	1	10
	8:30 AM	59	101	2	10	185	23	30	3	18	20	3	15	469	12	0	0	0	12
	8:45 AM	58	112	2	15	160	27	21	4	29	31	5	7	471	10	1	0	2	13
	9:00 AM	57	95	2	13	140	29	21	3	22	12	3	10	407	7	0	0	0	7
	9:15 AM	61	104	0	14	117	31	25	8	34	21	5	9	429	8	0	0	0	8
	VOLUMES	405	936	14	81	1,337	221	175	27	175	126	20	59	3,576	58	3	0	5	66
	APPROACH %	30%	69%	1%	5%	82%	13%	46%	7%	46%	61%	10%	29%						
	APP/DEPART	1,355	/	1,173	1,639	/	1,691	377	/	124	205	/	588	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	199	495	8	34	757	117	89	12	68	57	5	32	1,873					
	APPROACH %	28%	71%	1%	4%	83%	13%	53%	7%	40%	61%	5%	34%						
	PEAK HR FACTOR		0.836			0.950			0.813			0.618		0.960					
	APP/DEPART	702	/	618	908	/	909	169	/	55	94	/	291	0					
MD	11:00 AM	120	118	3	31	135	52	66	11	70	26	11	19	662	15	4	0	1	20
	11:15 AM	122	138	3	23	146	42	74	17	69	28	18	20	700	9	0	0	4	13
	11:30 AM	145	143	7	33	139	52	72	13	75	25	9	24	737	6	9	0	7	22
	11:45 AM	137	139	6	28	164	49	82	9	63	34	14	29	754	16	4	0	5	25
	12:00 PM	137	158	0	40	159	59	88	10	54	37	13	26	781	19	6	0	10	35
	12:15 PM	136	153	6	28	167	61	80	14	68	46	14	28	801	20	4	0	2	26
	12:30 PM	140	171	2	39	160	49	96	17	76	45	12	31	838	13	4	0	5	22
	12:45 PM	130	153	2	35	147	42	118	11	66	50	14	31	799	16	4	0	7	27
	VOLUMES	1,067	1,173	29	257	1,217	406	676	102	541	291	105	208	6,072	114	35	0	41	190
	APPROACH %	47%	52%	1%	14%	65%	22%	51%	8%	41%	48%	17%	34%						
	APP/DEPART	2,269	/	2,092	1,880	/	2,122	1,319	/	394	604	/	1,464	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	543	635	10	142	633	211	382	52	264	178	53	116	3,219					
	APPROACH %	46%	53%	1%	14%	64%	21%	55%	7%	38%	51%	15%	33%						
	PEAK HR FACTOR		0.949			0.955			0.895			0.913		0.960					
	APP/DEPART	1,188	/	1,151	986	/	1,119	698	/	210	347	/	739	0					
PM	03:00 PM	97	166	4	26	145	42	92	10	60	31	14	30	717	6	0	0	0	6
	3:15 PM	136	161	5	36	187	57	66	8	78	33	11	23	801	13	1	0	0	14
	3:30 PM	107	175	5	25	153	52	95	15	73	26	9	23	758	10	1	0	0	11
	3:45 PM	130	210	2	32	176	27	84	13	60	35	16	25	810	18	3	0	0	21
	4:00 PM	135	211	2	28	156	39	97	11	58	25	7	30	799	17	4	0	3	24
	4:15 PM	113	205	2	46	169	44	101	6	74	44	5	35	844	8	4	0	3	15
	4:30 PM	117	234	2	33	164	33	77	10	59	33	10	36	808	11	3	0	3	17
	4:45 PM	103	245	3	29	152	25	88	7	53	45	13	32	795	7	1	0	7	15
	VOLUMES	938	1,607	25	255	1,302	319	700	80	515	272	85	234	6,332	90	17	0	16	123
	APPROACH %	36%	63%	1%	14%	69%	17%	54%	6%	40%	46%	14%	40%						
	APP/DEPART	2,570	/	2,558	1,876	/	2,163	1,295	/	359	591	/	1,252	0					
	BEGIN PEAK HR		3:45 PM																
	VOLUMES	495	860	8	139	665	143	359	40	251	137	38	126	3,261					
	APPROACH %	36%	63%	1%	15%	70%	15%	55%	6%	39%	46%	13%	42%						
	PEAK HR FACTOR		0.965			0.914			0.898			0.896		0.966					
	APP/DEPART	1,363	/	1,359	947	/	1,098	650	/	182	301	/	622	0					

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	1	3	0	0	0	0	0	0	0	1	3	8
	8:15 AM	0	2	1	0	1	2	0	0	1	0	0	0	7
	8:30 AM	0	1	2	0	0	1	0	0	0	0	0	3	7
	8:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	9:00 AM	0	0	4	0	2	1	0	0	0	0	0	3	10
	9:15 AM	0	0	2	0	1	0	0	0	0	0	0	0	3
	TOTAL	0	4	12	0	6	4	0	0	1	0	1	9	37
MD	11:00 AM	0	0	2	0	2	0	0	0	0	0	0	1	5
	11:15 AM	0	5	3	0	3	1	0	0	0	0	1	1	14
	11:30 AM	0	0	3	0	1	1	0	0	0	0	0	5	10
	11:45 AM	0	3	4	0	2	0	0	0	0	0	0	1	10
	12:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	2
	12:15 PM	0	2	2	0	0	2	0	0	0	0	0	0	6
	12:30 PM	0	1	1	0	0	0	0	0	0	0	0	1	3
	12:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	TOTAL	0	12	17	0	8	4	0	0	0	0	1	9	51
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	3	0	0	1	0	3	0	0	0	3	0	10
	3:30 PM	0	0	0	0	1	0	0	0	0	0	0	1	2
	3:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	1	0	0	1	2	0	0	0	0	1	0	5
	4:30 PM	0	4	0	0	0	3	0	0	0	0	1	0	8
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	2
	TOTAL	0	8	0	0	4	5	3	0	0	0	5	3	28



INTERSECTION TURNING MOVEMENT COUNTS

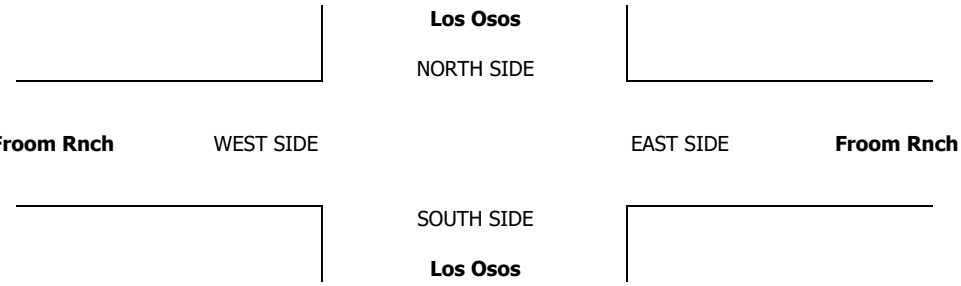
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	San Luis Obispo	PROJECT #:	SC0843
Tue, Apr 5, 16	NORTH & SOUTH:	Los Osos	LOCATION #:	78
	EAST & WEST:	Froom Rnch	CONTROL:	SIGNAL

NOTES:

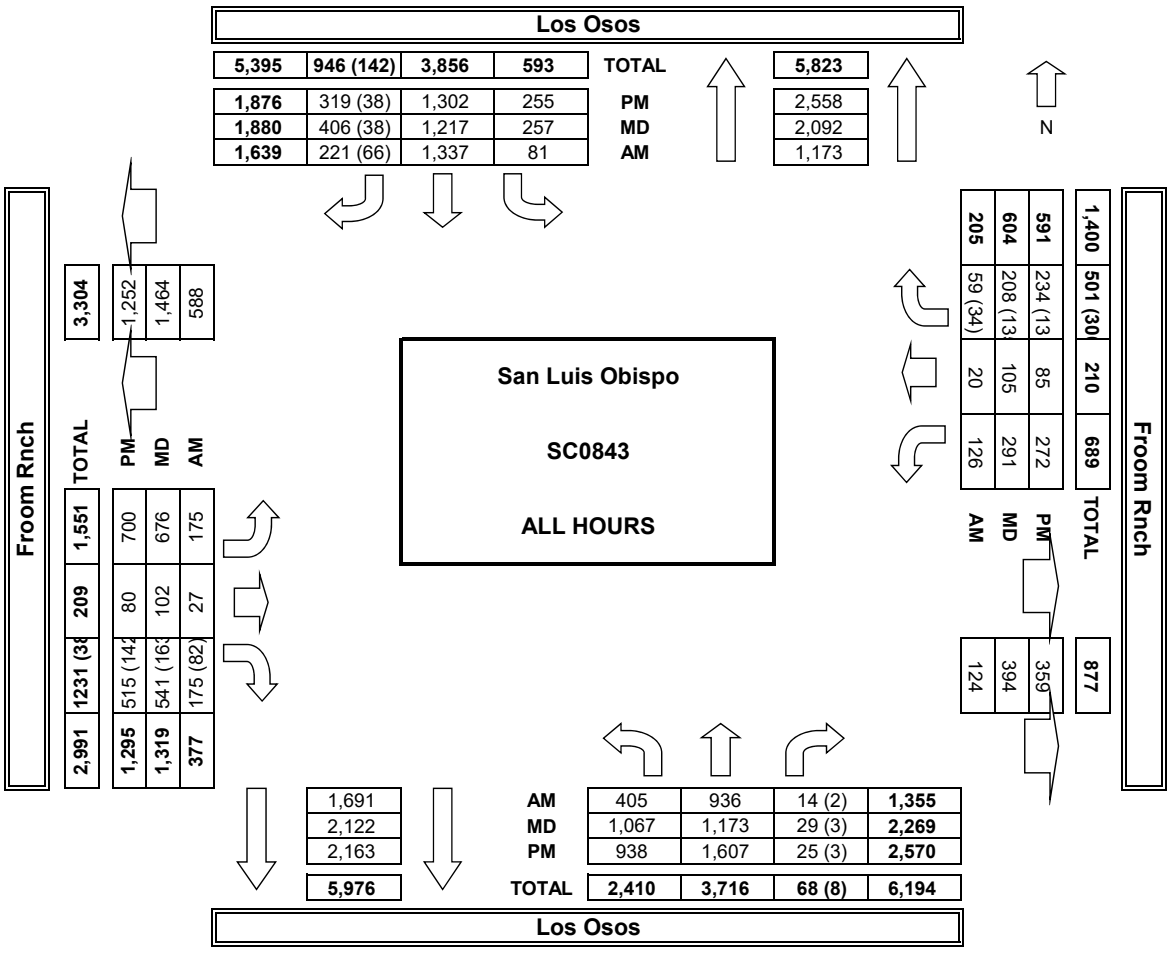
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

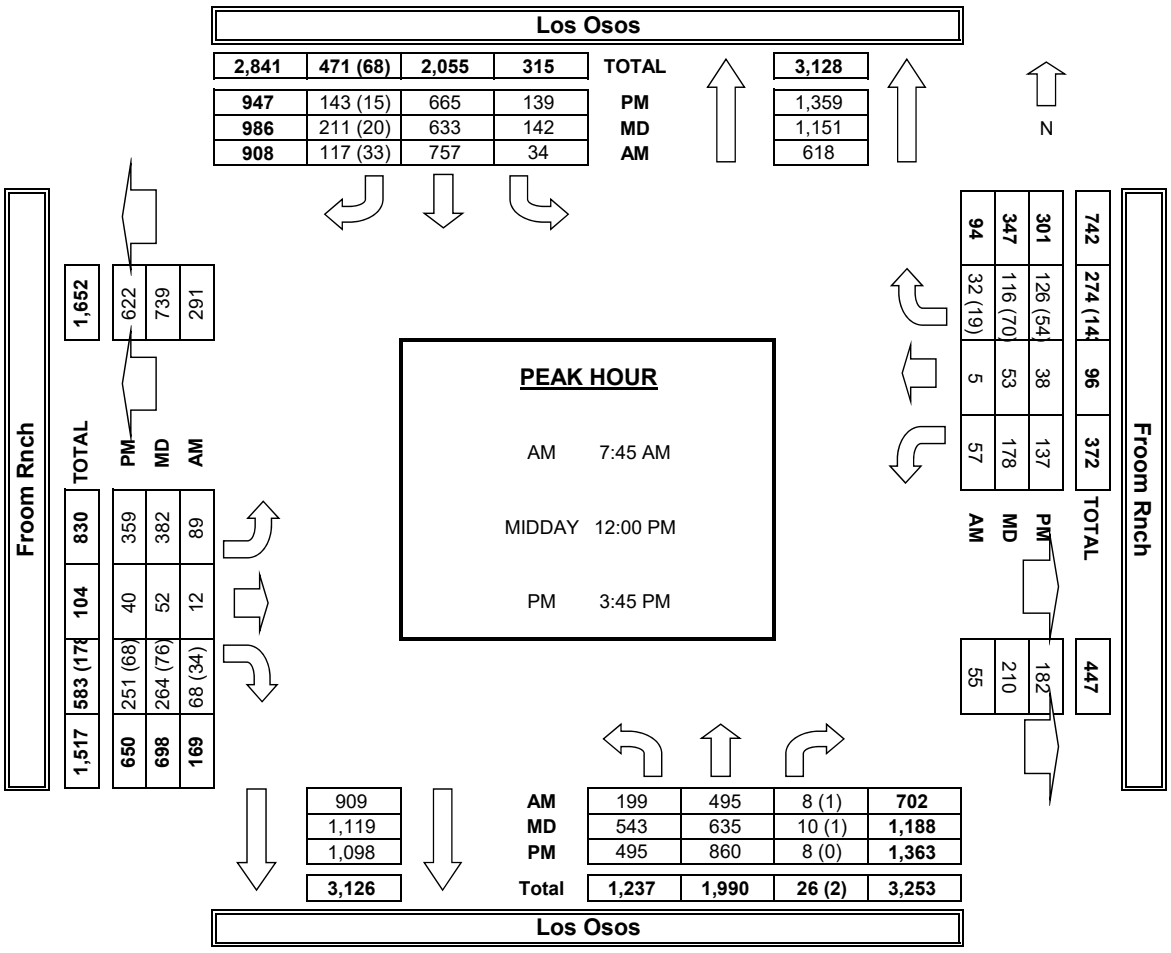
		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Froom Rnch			WESTBOUND Froom Rnch			
	LANES:	NL 2	NT 2.5	NR 0.5	SL 2	ST 2.5	SR 0.5	EL 2	ET 0.5	ER 0.5	WL 1	WT 1	WR 1	TOTAL
AM	7:30 AM	0	1	0	0	4	0	0	0	0	0	0	0	5
	7:45 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
	8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
	8:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	8:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	9:00 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	9:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	VOLUMES	0	4	0	0	15	1	0	0	0	0	0	0	20
	APPROACH %	0%	100%	0%	0%	94%	6%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	4	/	4	16	/	15	0	/	0	0	/	1	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	3	0	0	8	0	0	0	0	0	0	0	11
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.375			0.500			0.000			0.000		0.550
	APP/DEPART	3	/	3	8	/	8	0	/	0	0	/	0	0
MD	11:00 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	11:15 AM	0	3	0	0	1	0	0	0	0	0	0	0	4
	11:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	11:45 AM	0	2	0	0	4	0	0	0	0	0	0	0	6
	12:00 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
	12:15 PM	0	1	0	0	0	1	0	0	0	1	0	0	3
	12:30 PM	0	4	0	0	0	0	1	0	0	0	0	0	5
	12:45 PM	0	2	0	0	1	0	0	0	0	0	0	0	3
	VOLUMES	0	15	0	0	10	1	1	1	0	1	0	0	29
	APPROACH %	0%	100%	0%	0%	91%	9%	50%	50%	0%	100%	0%	0%	
	APP/DEPART	15	/	16	11	/	11	2	/	1	1	/	1	0
	BEGIN PEAK HR		11:45 AM											
	VOLUMES	0	9	0	0	4	1	1	1	0	1	0	0	17
	APPROACH %	0%	100%	0%	0%	80%	20%	50%	50%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.563			0.313			0.500			0.250		0.708
	APP/DEPART	9	/	10	5	/	5	2	/	1	1	/	1	0
PM	03:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	3:15 PM	0	0	0	0	3	0	0	0	0	0	0	0	3
	3:30 PM	0	1	0	0	0	0	0	1	0	0	1	0	3
	3:45 PM	0	0	0	0	2	0	0	1	0	1	0	0	4
	4:00 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
	4:15 PM	0	2	0	0	0	0	0	1	0	0	0	0	3
	4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	4:45 PM	0	3	0	0	1	0	0	0	0	0	0	0	4
	VOLUMES	0	8	0	0	7	0	0	3	0	1	2	0	21
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	33%	67%	0%	
	APP/DEPART	8	/	8	7	/	8	3	/	3	3	/	2	0
	BEGIN PEAK HR		3:15 PM											
	VOLUMES	0	3	0	0	3	0	0	3	0	1	2	0	12
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	100%	0%	33%	67%	0%	
	PEAK HR FACTOR		0.375			0.250			0.750			0.750		0.750
	APP/DEPART	3	/	3	3	/	4	3	/	3	3	/	2	0



AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, Apr 5, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Auto Park

PROJECT #: SC0843
LOCATION #: 79
CONTROL: STOP W

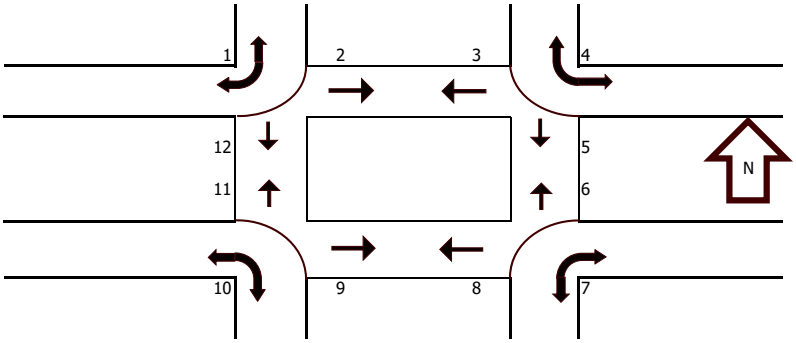
NOTES:

AM / PM / MD / OTHER / OTHER

Add U-Turns to Left Turns

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Auto Park			WESTBOUND Auto Park				U-TURNS				
	LANES:	NL X	NT 2	NR 0	SL 0	ST 2	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL	NB 0	SB 0	EB X	WB 0	TTL
AM	7:30 AM	0	167	21	7	181	0	0	0	0	2	0	4	382	0	0	0	0	0
	7:45 AM	1	217	24	6	220	0	0	0	0	5	0	2	475	1	0	0	0	1
	8:00 AM	0	181	14	4	212	0	0	0	0	2	0	4	417	0	0	0	0	0
	8:15 AM	0	166	24	9	226	0	0	0	0	5	0	7	437	0	0	0	0	0
	8:30 AM	0	153	18	8	236	0	0	0	0	4	0	10	429	0	0	0	0	0
	8:45 AM	0	197	23	4	235	0	0	0	0	6	0	7	472	0	0	0	0	0
	9:00 AM	0	164	10	1	202	0	0	0	0	6	0	10	393	0	0	0	0	0
	9:15 AM	1	181	12	2	201	0	0	0	0	3	0	1	401	1	1	0	0	2
	VOLUMES	2	1,426	146	41	1,713	0	0	0	0	33	0	45	3,406	2	1	0	0	3
	APPROACH %	0%	91%	9%	2%	98%	0%	0%	0%	0%	42%	0%	58%						
	APP/DEPART	1,574	/	1,472	1,754	/	1,748	0	/	186	78	/	0	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	1	717	80	27	894	0	0	0	0	16	0	23	1,758					
	APPROACH %	0%	90%	10%	3%	97%	0%	0%	0%	0%	41%	0%	59%						
	PEAK HR FACTOR		0.824			0.944			0.000			0.696		0.925					
	APP/DEPART	798	/	740	921	/	911	0	/	107	39	/	0	0					
MD	11:00 AM	0	262	10	5	251	0	0	0	0	7	0	12	547	0	1	0	0	1
	11:15 AM	0	271	16	7	263	0	0	0	0	2	0	14	573	0	0	0	0	0
	11:30 AM	0	276	12	11	264	0	0	0	0	12	0	18	593	0	0	0	0	0
	11:45 AM	0	296	10	10	281	0	0	0	0	6	0	14	617	0	0	0	0	0
	12:00 PM	0	335	7	10	252	0	0	0	0	11	0	20	635	0	0	0	0	0
	12:15 PM	0	343	15	13	313	0	0	0	0	11	0	13	708	0	1	0	0	1
	12:30 PM	0	313	8	9	291	0	0	0	0	13	0	17	651	0	0	0	0	0
	12:45 PM	0	303	18	14	299	0	0	0	0	10	0	16	660	0	0	0	0	0
	VOLUMES	0	2,399	96	79	2,214	0	0	0	0	72	0	124	4,984	0	2	0	0	2
	APPROACH %	0%	96%	4%	3%	97%	0%	0%	0%	0%	37%	0%	63%						
	APP/DEPART	2,495	/	2,525	2,293	/	2,286	0	/	173	196	/	0	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	0	1,294	48	46	1,155	0	0	0	0	45	0	66	2,654					
	APPROACH %	0%	96%	4%	4%	96%	0%	0%	0%	0%	41%	0%	59%						
	PEAK HR FACTOR		0.937			0.921			0.000			0.895		0.937					
	APP/DEPART	1,342	/	1,361	1,201	/	1,200	0	/	93	111	/	0	0					
PM	03:00 PM	0	274	11	10	278	0	0	0	0	12	0	9	594	0	1	0	0	1
	3:15 PM	0	307	12	12	294	0	0	0	0	9	0	15	649	0	2	0	0	2
	3:30 PM	0	305	10	8	272	0	0	0	0	17	0	12	624	0	1	0	0	1
	3:45 PM	0	339	15	9	298	0	0	0	0	7	0	11	679	0	0	0	0	0
	4:00 PM	0	348	11	11	277	0	0	0	0	19	0	19	685	0	1	0	0	1
	4:15 PM	0	316	9	9	314	0	0	0	0	8	0	14	670	0	0	0	0	0
	4:30 PM	0	381	19	5	270	0	0	0	0	15	0	15	705	0	0	0	0	0
	4:45 PM	0	372	7	4	275	0	0	0	0	10	0	17	685	0	0	0	0	0
	VOLUMES	0	2,642	94	68	2,278	0	0	0	0	97	0	112	5,291	0	5	0	0	5
	APPROACH %	0%	97%	3%	3%	97%	0%	0%	0%	0%	46%	0%	54%						
	APP/DEPART	2,736	/	2,759	2,346	/	2,375	0	/	157	209	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	1,417	46	29	1,136	0	0	0	0	52	0	65	2,745					
	APPROACH %	0%	97%	3%	2%	98%	0%	0%	0%	0%	44%	0%	56%						
	PEAK HR FACTOR		0.914			0.902			0.000			0.770		0.973					
	APP/DEPART	1,463	/	1,483	1,165	/	1,188	0	/	74	117	/	0	0					

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:00 AM	0	0	0	1	1	1	0	0	0	0	0	0	3
	8:15 AM	0	0	0	0	4	0	0	0	0	0	0	0	4
	8:30 AM	0	0	0	0	0	3	0	0	0	0	1	0	4
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	1	2	1	0	0	0	0	0	0	4
	9:15 AM	0	0	0	0	7	3	1	0	0	0	0	0	11
	TOTAL	0	0	0	2	15	9	1	0	0	0	1	0	28
MD	11:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	11:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	11:30 AM	0	0	0	0	1	3	0	0	0	0	0	1	5
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	5	4	0	0	0	0	0	0	9
	12:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	12:30 PM	0	0	0	0	1	4	0	0	0	0	0	1	6
	12:45 PM	0	0	0	0	1	2	0	0	0	0	0	0	3
	TOTAL	0	0	0	0	9	15	0	0	0	0	0	2	26
PM	3:00 PM	0	0	0	1	3	0	0	0	0	0	0	0	4
	3:15 PM	0	0	0	2	0	2	0	0	0	0	0	0	4
	3:30 PM	0	0	0	1	0	4	0	0	0	0	0	0	5
	3:45 PM	0	0	0	0	2	2	0	0	0	0	0	0	4
	4:00 PM	0	0	0	1	1	2	1	0	0	0	0	0	5
	4:15 PM	0	0	0	0	4	0	0	0	0	0	0	0	4
	4:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	2
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	5	10	10	1	0	0	0	1	1	28



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, Apr 5, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Auto Park

PROJECT #: SC0843
LOCATION #: 79
CONTROL: STOP W

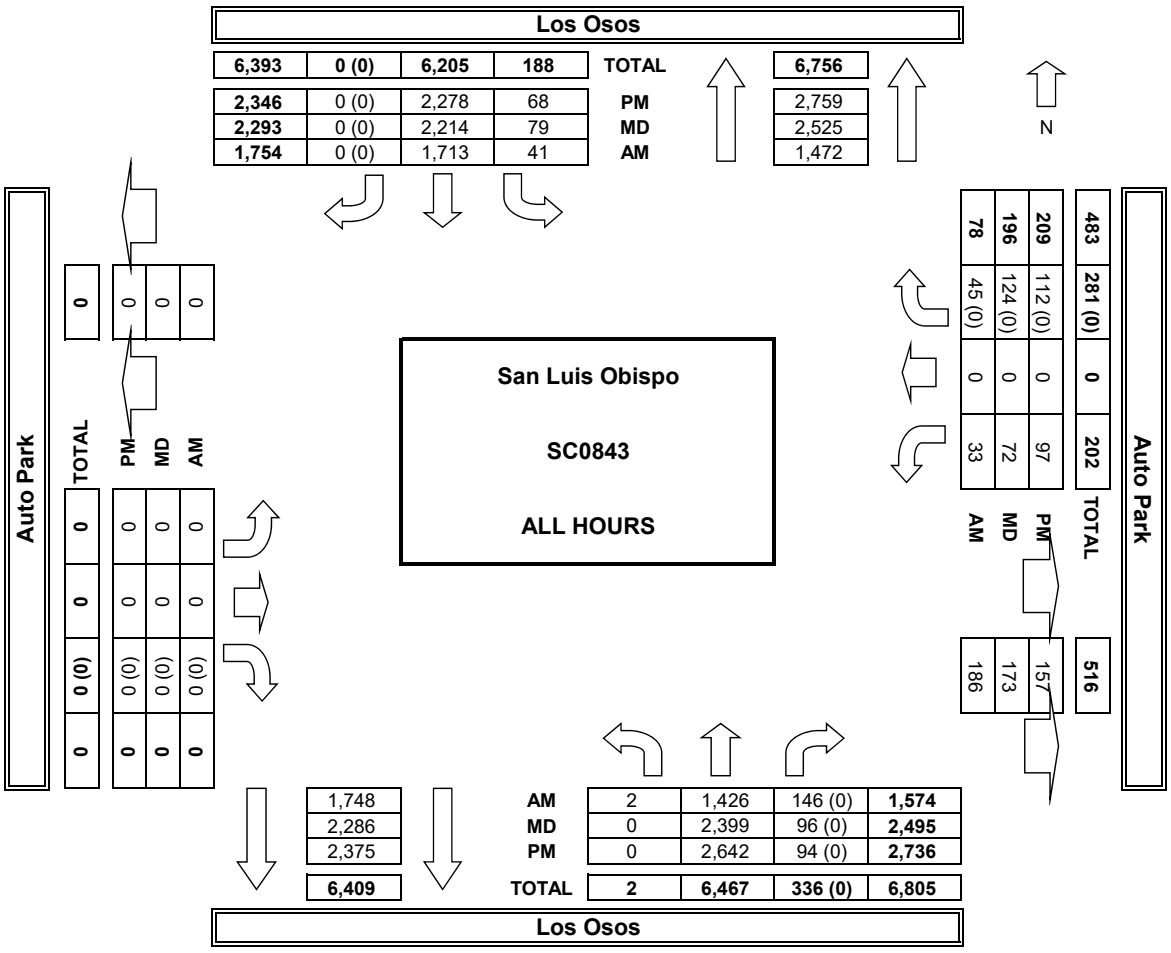
NOTES:

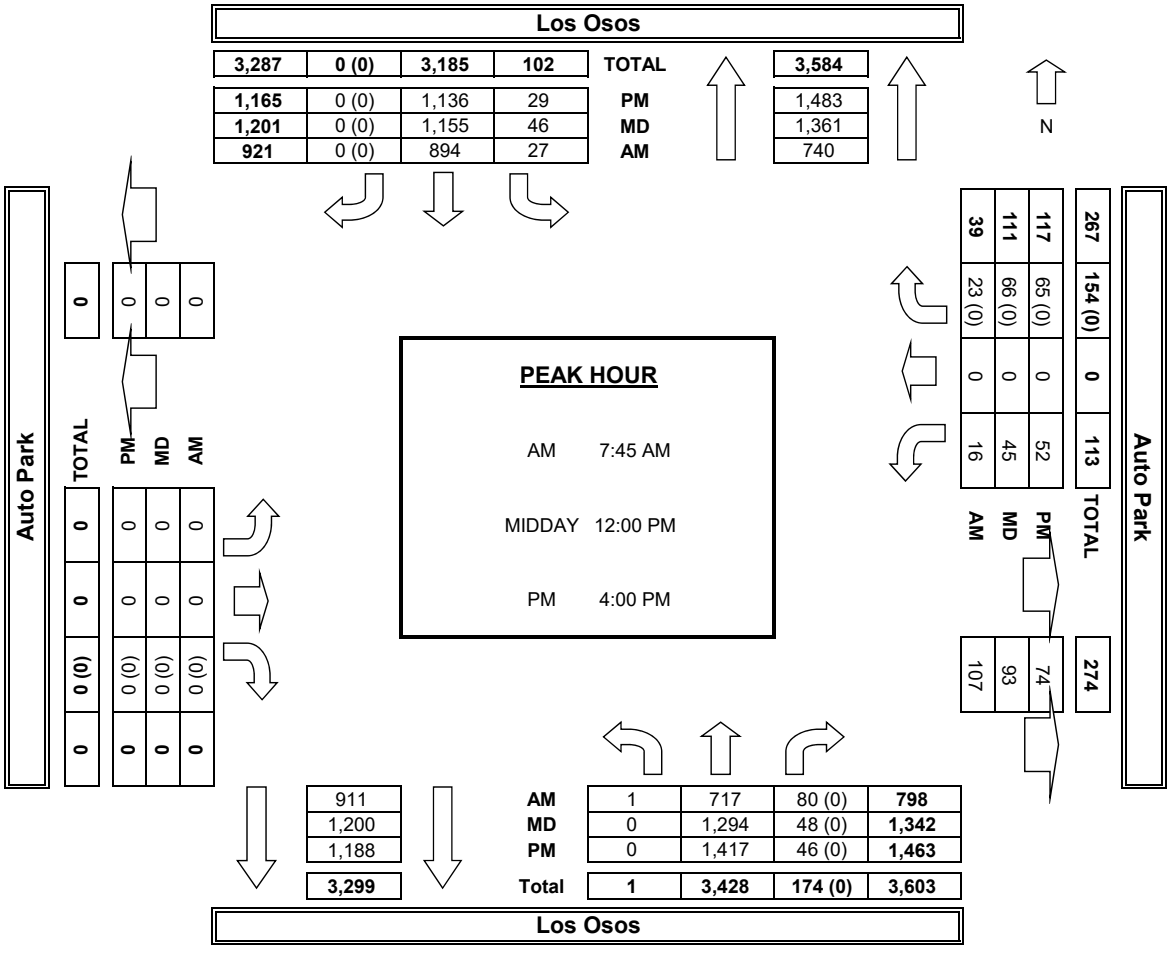
AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Auto Park			WESTBOUND Auto Park			
	LANES:	NL X	NT 2	NR 0	SL 0	ST 2	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL
AM	7:30 AM	0	0	0	0	4	0	0	0	0	0	0	0	4
	7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	8:00 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
	8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	9:00 AM	0	1	0	0	5	0	0	0	0	0	0	0	6
	9:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	VOLUMES	0	5	0	0	17	0	0	0	0	0	0	0	22
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	5	/	5	17	/	17	0	/	0	0	/	0	0
	BEGIN PEAK HR		8:30 AM											
	VOLUMES	0	3	0	0	9	0	0	0	0	0	0	0	12
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.450			0.000			0.000		0.500
	APP/DEPART	3	/	3	9	/	9	0	/	0	0	/	0	0
MD	11:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	11:15 AM	0	4	0	0	1	0	0	0	0	0	0	0	5
	11:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	11:45 AM	0	2	0	0	3	0	0	0	0	0	0	0	5
	12:00 PM	0	5	0	0	1	0	0	0	0	0	0	0	6
	12:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	12:30 PM	0	6	0	0	3	0	0	0	0	0	0	0	9
	12:45 PM	0	2	0	0	3	0	0	0	0	0	0	0	5
	VOLUMES	0	20	0	0	15	0	0	0	0	0	0	0	35
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	20	/	20	15	/	15	0	/	0	0	/	0	0
	BEGIN PEAK HR		11:45 AM											
	VOLUMES	0	14	0	0	7	0	0	0	0	0	0	0	21
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.583			0.583			0.000			0.000		0.583
	APP/DEPART	14	/	14	7	/	7	0	/	0	0	/	0	0
PM	03:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
	3:15 PM	0	2	0	0	4	0	0	0	0	0	0	0	6
	3:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	3:45 PM	0	1	0	0	3	0	0	0	0	0	0	0	4
	4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:15 PM	0	4	0	0	0	0	0	0	0	0	0	0	4
	4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:45 PM	0	5	0	0	2	0	0	0	0	0	0	0	7
	VOLUMES	0	15	0	0	12	0	0	0	0	0	0	0	27
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	15	/	15	12	/	12	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	6	0	0	8	0	0	0	0	0	0	0	14
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.500			0.000			0.000		0.583
	APP/DEPART	6	/	6	8	/	8	0	/	0	0	/	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Mar 16, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Calle Joaquin

PROJECT #: SC0843
LOCATION #: 80
CONTROL: SIGNAL

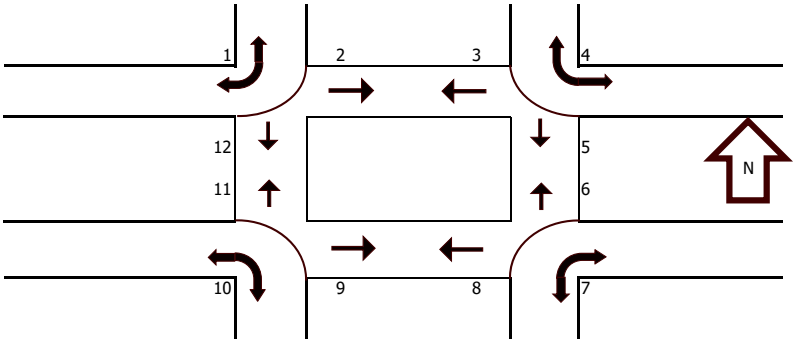
NOTES:

AM / PM / MD / OTHER / OTHER — N ▲ / ◄ W / E ► / S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Calle Joaquin			WESTBOUND Calle Joaquin				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 1.5	SR 0.5	EL 1	ET 1	ER 1	WL 1	WT 0.5	WR 0.5	TOTAL	NB 0	SB 0	EB X	WB X	TTL
AM	7:30 AM	11	155	15	2	221	4	3	1	9	8	0	5	434	0	0	0	0	0
	7:45 AM	13	182	21	8	236	4	2	0	10	6	0	8	490	0	0	0	0	0
	8:00 AM	8	174	12	4	201	1	3	2	9	13	0	6	433	0	0	0	0	0
	8:15 AM	6	183	14	7	175	3	3	1	11	12	1	7	423	0	0	0	0	0
	8:30 AM	4	190	13	5	204	4	6	0	6	8	1	7	448	0	0	0	0	0
	8:45 AM	12	201	9	10	190	8	6	2	21	9	1	13	482	0	0	0	0	0
	9:00 AM	6	240	10	3	187	5	5	2	11	16	2	7	494	0	0	0	0	0
	9:15 AM	9	266	20	9	197	8	2	2	13	14	2	13	555	1	0	0	0	1
	VOLUMES	69	1,591	114	48	1,611	37	30	10	90	86	7	66	3,759	1	0	0	0	1
	APPROACH %	4%	90%	6%	3%	95%	2%	23%	8%	69%	54%	4%	42%						
	APP/DEPART	1,774	/	1,687	1,696	/	1,788	130	/	172	159	/	112	0					
	BEGIN PEAK HR		8:30 AM																
	VOLUMES	31	897	52	27	778	25	19	6	51	47	6	40	1,979					
	APPROACH %	3%	92%	5%	3%	94%	3%	25%	8%	67%	51%	6%	43%						
	PEAK HR FACTOR		0.831			0.970			0.655			0.802		0.891					
	APP/DEPART	980	/	956	830	/	877	76	/	85	93	/	61	0					
MD	11:00 AM	6	252	18	5	261	5	10	1	15	17	0	14	604	0	0	0	0	0
	11:15 AM	2	289	14	7	227	8	2	1	8	18	1	6	583	0	0	0	0	0
	11:30 AM	13	332	15	11	246	6	2	0	7	7	1	18	658	1	1	0	0	2
	11:45 AM	6	312	15	6	222	8	5	0	12	11	0	23	620	0	0	0	0	0
	12:00 PM	5	309	20	7	272	8	12	2	16	17	0	14	682	0	0	0	0	0
	12:15 PM	4	317	13	4	258	3	4	1	11	13	0	10	638	0	0	0	0	0
	12:30 PM	6	298	5	3	255	8	6	0	15	10	0	7	613	0	0	0	0	0
	12:45 PM	15	289	18	12	269	8	9	1	26	12	0	12	671	0	0	0	0	0
	VOLUMES	57	2,398	118	55	2,010	54	50	6	110	105	2	104	5,069	1	1	0	0	2
	APPROACH %	2%	93%	5%	3%	95%	3%	30%	4%	66%	50%	1%	49%						
	APP/DEPART	2,573	/	2,553	2,119	/	2,226	166	/	178	211	/	112	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	30	1,213	56	26	1,054	27	31	4	68	52	0	43	2,604					
	APPROACH %	2%	93%	4%	2%	95%	2%	30%	4%	66%	55%	0%	45%						
	PEAK HR FACTOR		0.972			0.958			0.715			0.766		0.955					
	APP/DEPART	1,299	/	1,287	1,107	/	1,174	103	/	86	95	/	57	0					
PM	03:00 PM	10	328	19	10	317	1	4	0	14	30	2	13	748	1	0	0	0	1
	3:15 PM	13	290	23	10	275	8	5	0	8	28	0	13	673	0	0	0	0	0
	3:30 PM	10	341	15	10	279	6	6	1	8	20	0	15	711	1	0	0	0	1
	3:45 PM	13	349	8	5	319	11	4	1	14	17	0	7	748	0	0	0	0	0
	4:00 PM	12	399	5	8	332	5	6	3	12	25	1	12	820	0	0	0	0	0
	4:15 PM	14	382	11	4	324	9	4	1	9	29	1	12	800	0	0	0	0	0
	4:30 PM	10	290	3	9	286	10	4	1	20	26	0	6	665	0	0	0	0	0
	4:45 PM	12	293	7	6	241	15	3	0	20	16	0	5	618	0	0	0	0	0
	VOLUMES	94	2,672	91	62	2,373	65	36	7	105	191	4	83	5,783	2	0	0	0	2
	APPROACH %	3%	94%	3%	2%	95%	3%	24%	5%	71%	69%	1%	30%						
	APP/DEPART	2,857	/	2,791	2,500	/	2,671	148	/	160	278	/	161	0					
	BEGIN PEAK HR		3:30 PM																
	VOLUMES	49	1,471	39	27	1,254	31	20	6	43	91	2	46	3,079					
	APPROACH %	3%	94%	3%	2%	96%	2%	29%	9%	62%	65%	1%	33%						
	PEAK HR FACTOR		0.937			0.951			0.821			0.827		0.939					
	APP/DEPART	1,559	/	1,537	1,312	/	1,389	69	/	72	139	/	81	0					

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	2
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	2	0	2	0	0	0	0	0	0	0	0	4
MD	11:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	2
	11:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	2
	11:30 AM	0	1	1	2	0	0	0	0	0	0	0	0	4
	11:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	12:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	2	1	3	0	4	0	0	0	0	0	0	10
PM	3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
	3:30 PM	0	0	0	1	0	2	0	0	0	0	0	0	3
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	1	0	1	0	0	1	1	0	0	0	4
	4:45 PM	0	0	0	0	0	3	0	0	0	0	0	1	4
	TOTAL	0	1	1	1	1	6	0	1	1	0	1	1	14



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Mar 16, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Calle Joaquin

PROJECT #: SC0843
LOCATION #: 80
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Calle Joaquin			WESTBOUND Calle Joaquin			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 1.5	SR 0.5	EL 1	ET 1	ER 1	WL 1	WT 0.5	WR 0.5	TOTAL
AM	7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
	8:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	8:15 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	8:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	8:45 AM	0	2	0	0	0	0	0	0	0	0	0	1	3
	9:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	9:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	0	5	0	0	8	0	0	0	0	0	0	2	15
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	5	/	7	8	/	8	0	/	0	2	/	0	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	3	0	0	7	0	0	0	0	0	0	1	11
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.375			0.583			0.000			0.250		0.688
	APP/DEPART	3	/	4	7	/	7	0	/	0	1	/	0	0
MD	11:00 AM	0	2	0	0	4	0	0	0	0	0	0	0	6
	11:15 AM	0	2	0	1	1	0	0	1	0	0	0	0	5
	11:30 AM	0	1	0	1	1	0	0	0	0	0	1	0	4
	11:45 AM	0	3	0	0	1	0	0	0	0	0	0	0	4
	12:00 PM	0	3	0	0	4	0	0	0	0	0	0	0	7
	12:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	12:30 PM	0	4	0	0	4	0	0	0	0	0	0	0	8
	12:45 PM	0	2	0	0	1	0	0	0	0	0	0	0	3
	VOLUMES	0	18	0	2	16	0	0	1	0	0	1	0	38
	APPROACH %	0%	100%	0%	11%	89%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	18	/	18	18	/	16	1	/	3	1	/	1	0
	BEGIN PEAK HR		11:15 AM											
	VOLUMES	0	11	0	0	9	0	0	0	0	0	0	0	20
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.688			0.563			0.000			0.000		0.625
	APP/DEPART	11	/	11	9	/	9	0	/	0	0	/	0	0
PM	03:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	4
	3:15 PM	0	1	0	0	3	0	1	0	0	0	0	0	5
	3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	3:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	4:00 PM	0	3	0	0	1	0	0	0	0	0	0	0	4
	4:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	4:30 PM	0	2	0	0	2	0	0	0	0	0	0	0	4
	4:45 PM	0	0	0	0	4	0	0	0	0	0	0	0	4
	VOLUMES	0	12	0	0	13	0	1	0	0	0	0	0	26
	APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	12	/	13	13	/	13	1	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	7	0	0	7	0	0	0	0	0	0	0	14
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.583			0.438			0.000			0.000		0.875
	APP/DEPART	7	/	7	7	/	7	0	/	0	0	/	0	0

Los Osos

NORTH SIDE

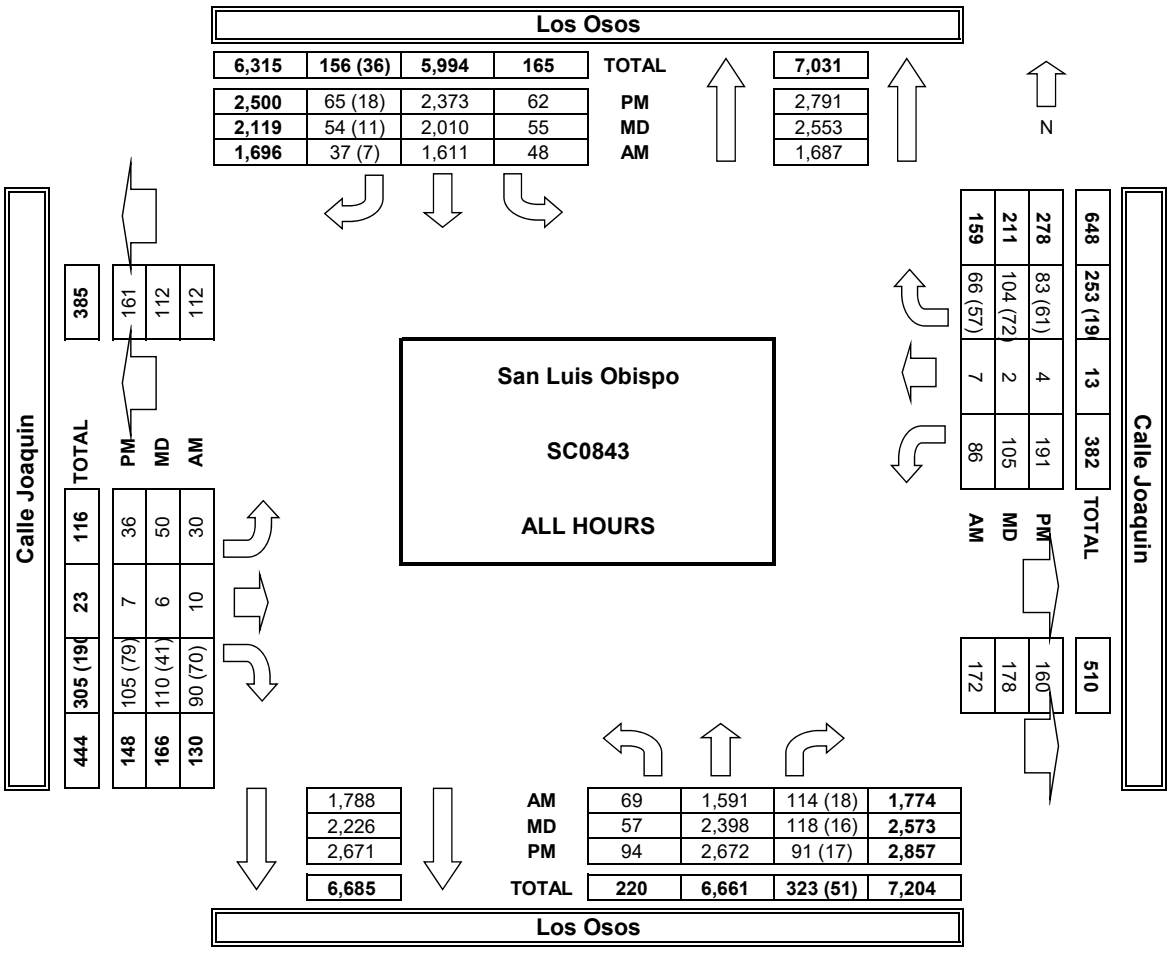
Calle Joaquin WEST SIDE EAST SIDE **Calle Joaquin**

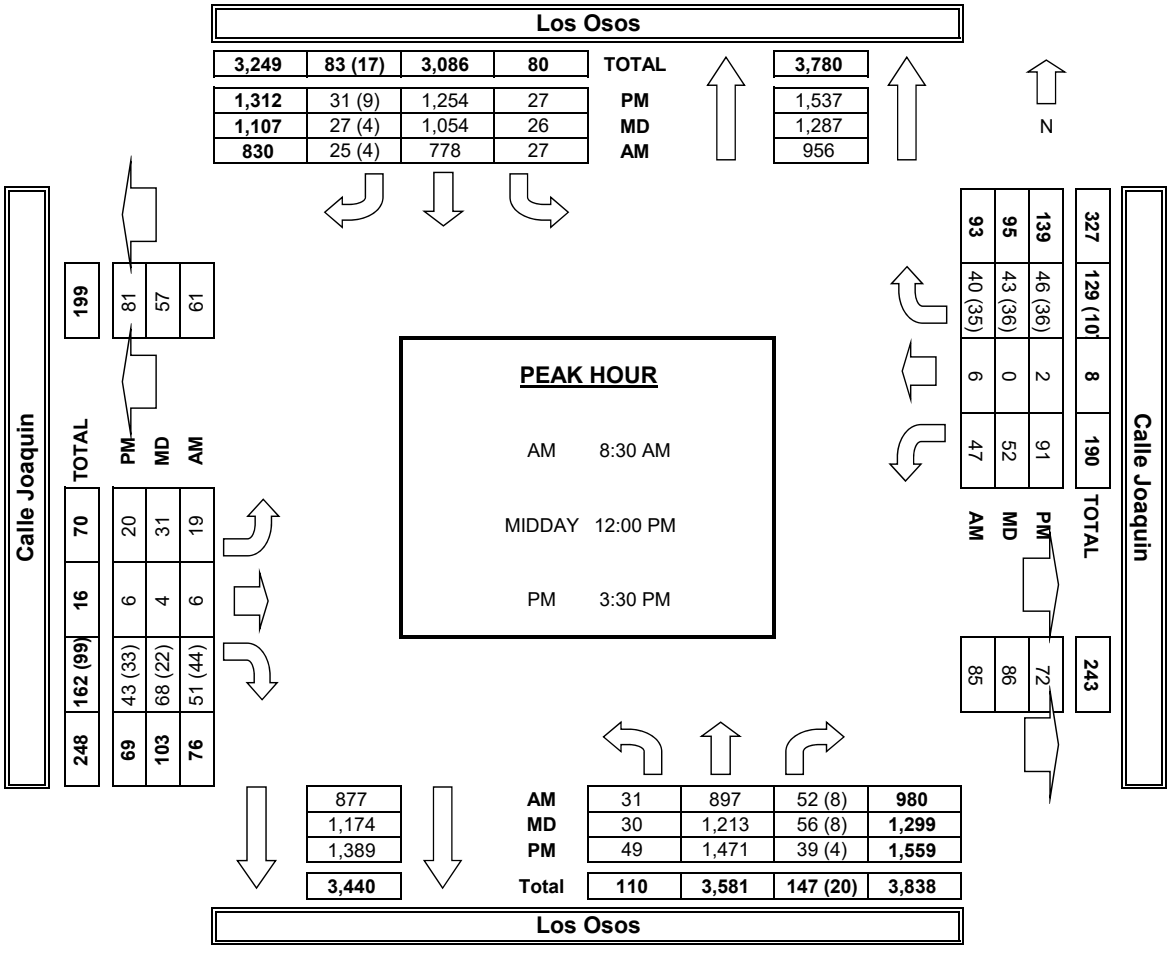
SOUTH SIDE

Los Osos

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Mar 16, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Hwy 101 SB

PROJECT #: SC0843
LOCATION #: 81
CONTROL: SIGNAL

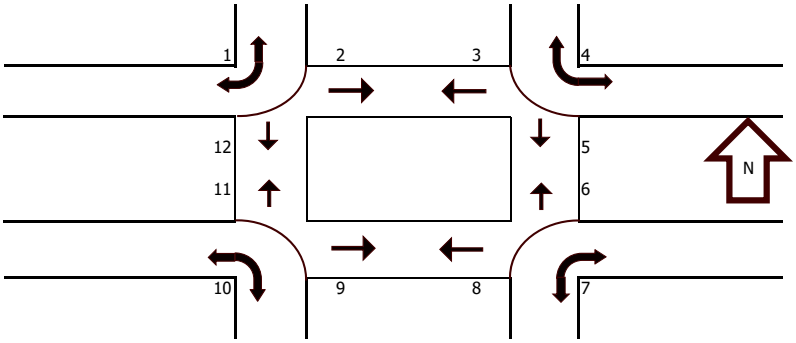
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND (Los Osos)			SOUTHBOUND (Los Osos)			EASTBOUND (Hwy 101 SB)			WESTBOUND (Hwy 101 SB)				U-TURNS				
	LANES:	NL 1	NT 2	NR X	SL X	ST 1	SR 1	EL X	ET X	ER X	WL 1	WT 0.5	WR 0.5	TOTAL	NB X	SB X	EB X	WB 0	TTL
AM	7:30 AM	3	147	0	0	117	84	0	0	0	86	0	36	473	0	0	0	0	0
	7:45 AM	7	214	0	0	140	89	0	0	0	99	1	79	629	0	0	0	0	0
	8:00 AM	4	192	0	0	173	85	0	0	0	83	0	43	580	0	0	0	0	0
	8:15 AM	2	172	0	0	133	89	0	0	0	88	1	46	531	0	0	0	0	0
	8:30 AM	9	146	0	0	142	74	0	0	0	98	0	49	518	0	0	0	0	0
	8:45 AM	8	180	0	0	168	79	0	0	0	67	0	52	554	0	0	0	0	0
	9:00 AM	10	180	0	0	148	64	0	0	0	58	0	45	505	0	0	0	0	0
	9:15 AM	4	140	0	0	111	75	0	0	0	43	0	61	434	0	0	0	0	0
	VOLUMES	47	1,371	0	0	1,132	639	0	0	0	622	2	411	4,224	0	0	0	0	0
	APPROACH %	3%	97%	0%	0%	64%	36%	0%	0%	0%	60%	0%	40%						
	APP/DEPART	1,418	/	1,782	1,771	/	1,754	0	/	0	1,035	/	688	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	22	724	0	0	588	337	0	0	0	368	2	217	2,258					
	APPROACH %	3%	97%	0%	0%	64%	36%	0%	0%	0%	63%	0%	37%						
	PEAK HR FACTOR		0.844			0.896			0.000			0.820		0.897					
	APP/DEPART	746	/	941	925	/	956	0	/	0	587	/	361	0					
MD	11:00 AM	16	228	0	0	140	97	0	0	0	31	0	82	594	0	0	0	0	0
	11:15 AM	13	210	0	0	162	96	0	0	0	26	0	86	593	0	0	0	0	0
	11:30 AM	9	249	0	0	152	105	0	0	0	47	0	91	653	0	0	0	0	0
	11:45 AM	10	228	0	0	154	120	0	0	0	43	2	102	659	0	0	0	0	0
	12:00 PM	16	247	0	0	184	126	0	0	0	42	0	84	699	0	0	0	0	0
	12:15 PM	10	239	0	0	153	125	0	0	0	50	0	88	665	0	0	0	0	0
	12:30 PM	11	213	0	0	180	120	0	0	0	42	1	80	647	0	0	0	0	0
	12:45 PM	12	270	0	0	184	114	0	0	0	33	0	86	699	0	0	0	0	0
	VOLUMES	97	1,884	0	0	1,309	903	0	0	0	314	3	699	5,209	0	0	0	0	0
	APPROACH %	5%	95%	0%	0%	59%	41%	0%	0%	0%	31%	0%	69%						
	APP/DEPART	1,981	/	2,583	2,212	/	1,623	0	/	0	1,016	/	1,003	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	49	969	0	0	701	485	0	0	0	167	1	338	2,710					
	APPROACH %	5%	95%	0%	0%	59%	41%	0%	0%	0%	33%	0%	67%						
	PEAK HR FACTOR		0.902			0.956			0.000			0.917		0.969					
	APP/DEPART	1,018	/	1,307	1,186	/	868	0	/	0	506	/	535	0					
PM	04:00 PM	9	261	0	0	195	164	0	0	0	61	0	115	805	0	0	0	0	0
	4:15 PM	10	247	0	0	186	155	0	0	0	42	0	85	725	0	0	0	0	0
	4:30 PM	11	280	0	0	164	138	0	0	0	39	2	83	717	0	0	0	0	0
	4:45 PM	13	261	0	0	168	149	0	0	0	42	0	94	727	0	0	0	0	0
	5:00 PM	12	314	0	0	193	153	0	0	0	51	0	90	813	0	0	0	0	0
	5:15 PM	15	347	0	0	187	174	0	0	0	64	0	92	879	0	0	0	0	0
	5:30 PM	13	267	0	0	167	162	0	0	0	34	0	72	715	0	0	0	0	0
	5:45 PM	11	243	0	0	178	128	0	0	0	42	0	77	679	0	0	0	0	0
	VOLUMES	94	2,220	0	0	1,438	1,223	0	0	0	375	2	708	6,060	0	0	0	0	0
	APPROACH %	4%	96%	0%	0%	54%	46%	0%	0%	0%	35%	0%	65%						
	APP/DEPART	2,314	/	2,928	2,661	/	1,813	0	/	0	1,085	/	1,319	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	51	1,202	0	0	712	614	0	0	0	196	2	359	3,136					
	APPROACH %	4%	96%	0%	0%	54%	46%	0%	0%	0%	35%	0%	64%						
	PEAK HR FACTOR		0.865			0.918			0.000			0.893		0.892					
	APP/DEPART	1,253	/	1,561	1,326	/	908	0	/	0	557	/	667	0					

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:30 AM	0	0	0	0	1	0	0	0	1	0	1	1	4
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	2	0	0	0	1	0	1	1	5
MD	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:30 AM	0	0	0	0	1	1	0	0	0	0	0	0	2
	11:45 AM	0	0	0	0	1	0	0	0	0	0	0	1	2
	12:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	TOTAL	0	0	0	0	4	1	0	0	0	0	0	1	6
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	2	2	0	0	0	0	0	1	5
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	5:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	TOTAL	0	0	0	0	4	2	0	0	0	0	0	2	8



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Mar 16, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Hwy 101 SB

PROJECT #: SC0843
LOCATION #: 81
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Hwy 101 SB			WESTBOUND Hwy 101 SB			
	LANES:	NL 1	NT 2	NR X	SL X	ST 1	SR 1	EL X	ET X	ER X	WL 1	WT 0.5	WR 0.5	TOTAL
AM	7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	9:00 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
	9:15 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	VOLUMES	0	5	0	0	10	0	0	0	0	0	0	0	15
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	5	/	5	10	/	10	0	/	0	0	/	0	0
	BEGIN PEAK HR		8:30 AM											
	VOLUMES	0	3	0	0	7	0	0	0	0	0	0	0	10
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.583			0.000			0.000		0.625
	APP/DEPART	3	/	3	7	/	7	0	/	0	0	/	0	0
MD	11:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	11:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	11:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	11:45 AM	0	4	0	0	0	0	0	0	0	0	0	0	4
	12:00 PM	0	2	0	0	3	0	0	0	0	0	0	0	5
	12:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	12:30 PM	0	7	0	0	1	0	0	0	0	0	0	0	8
	12:45 PM	0	1	0	0	3	2	0	0	0	0	0	0	6
	VOLUMES	0	16	0	0	10	2	0	0	0	0	0	0	28
	APPROACH %	0%	100%	0%	0%	83%	17%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	16	/	16	12	/	10	0	/	0	0	/	2	0
	BEGIN PEAK HR		12:00 PM											
	VOLUMES	0	11	0	0	7	2	0	0	0	0	0	0	20
	APPROACH %	0%	100%	0%	0%	78%	22%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.393			0.450			0.000			0.000		0.625
	APP/DEPART	11	/	11	9	/	7	0	/	0	0	/	2	0
PM	04:00 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	4:15 PM	0	1	0	0	3	0	0	0	0	0	0	0	4
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
	5:30 PM	0	4	0	0	2	0	0	0	0	0	0	0	6
	5:45 PM	0	0	0	0	4	0	0	0	0	0	0	0	4
	VOLUMES	0	10	0	0	12	0	0	0	0	0	0	0	22
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	10	/	10	12	/	12	0	/	0	0	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	7	0	0	7	0	0	0	0	0	0	0	14
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.438			0.438			0.000			0.000		0.583
	APP/DEPART	7	/	7	7	/	7	0	/	0	0	/	0	0

Los Osos

NORTH SIDE

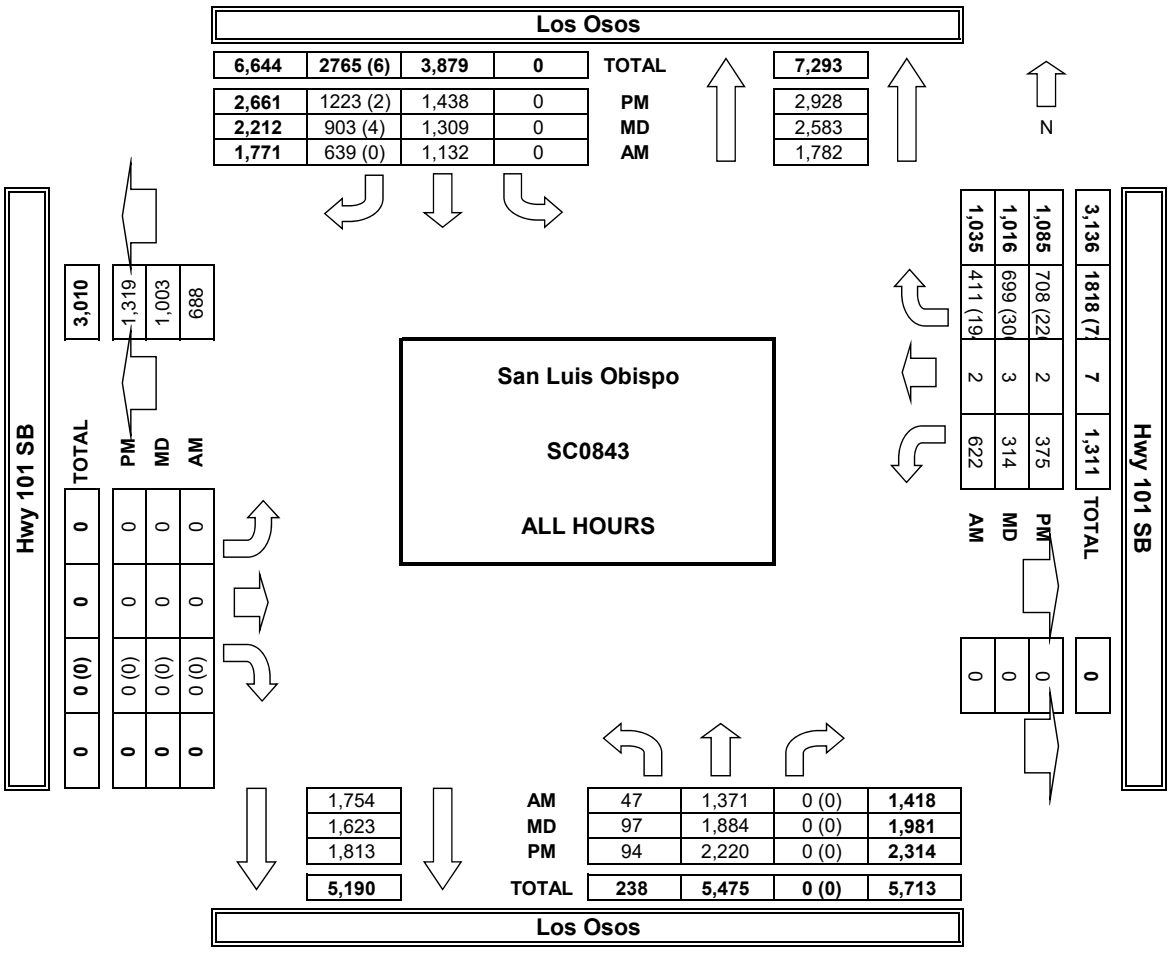
Hwy 101 SB WEST SIDE EAST SIDE **Hwy 101 SB**

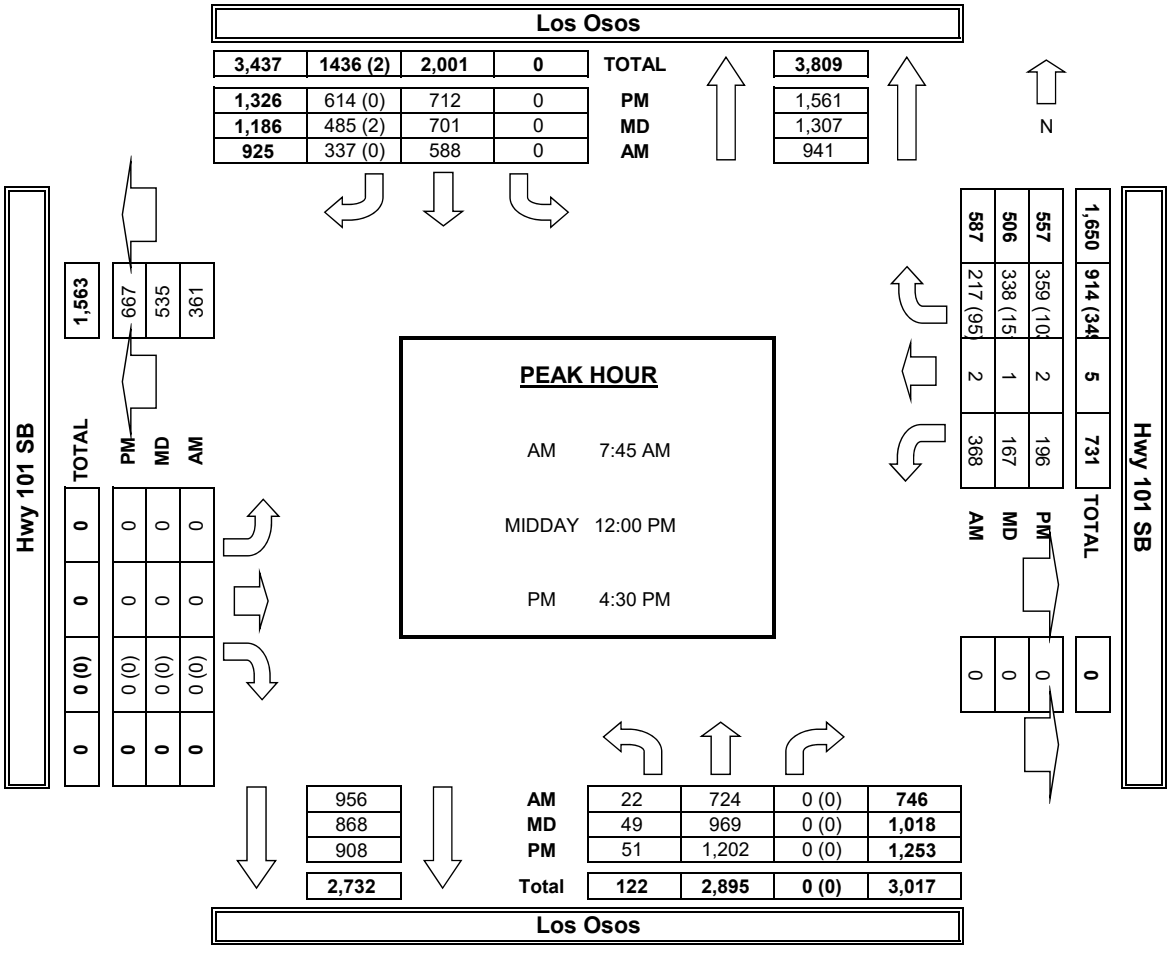
SOUTH SIDE

Los Osos

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Mar 16, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Hwy 101 NB

PROJECT #: SC0843
LOCATION #: 82
CONTROL: SIGNAL

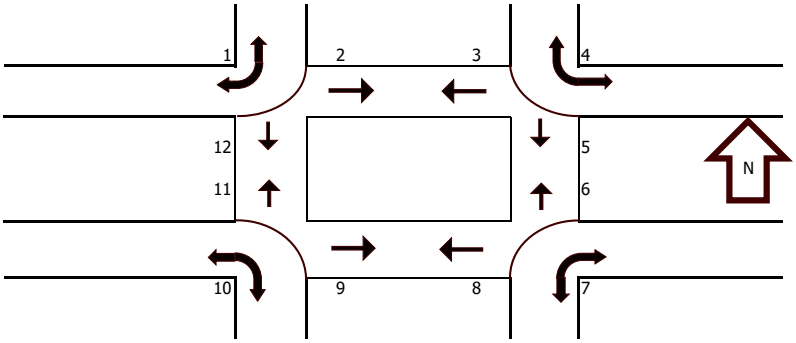
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Hwy 101 NB			WESTBOUND Hwy 101 NB				U-TURNS				
	LANES:	NL 1	NT 1	NR X	SL X	ST 1	SR 1	EL 1.5	ET X	ER 0.5	WL X	WT X	WR X	TOTAL	NB X	SB X	EB 0	WB X	TTL
AM	7:30 AM	15	68	0	0	167	19	102	0	25	0	0	0	396	0	0	0	0	0
	7:45 AM	17	101	0	0	236	19	130	0	38	0	0	0	541	0	0	0	0	0
	8:00 AM	10	79	0	0	243	28	111	0	31	0	0	0	502	0	0	0	0	0
	8:15 AM	12	73	0	0	202	24	105	0	33	0	0	0	449	0	0	0	0	0
	8:30 AM	19	62	0	0	195	26	97	0	38	0	0	0	437	0	0	0	0	0
	8:45 AM	14	78	0	0	206	35	116	0	31	0	0	0	480	0	0	0	0	0
	9:00 AM	5	79	0	0	150	37	108	0	18	0	0	0	397	0	0	0	0	0
	9:15 AM	13	75	0	0	120	40	71	0	24	0	0	0	343	0	0	0	0	0
	VOLUMES	105	615	0	0	1,519	228	840	0	238	0	0	0	3,545	0	0	0	0	0
	APPROACH %	15%	85%	0%	0%	87%	13%	78%	0%	22%	0%	0%	0%						
	APP/DEPART	720	/	1,455	1,747	/	1,757	1,078	/	0	0	/	333	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	58	315	0	0	876	97	443	0	140	0	0	0	1,929					
	APPROACH %	16%	84%	0%	0%	90%	10%	76%	0%	24%	0%	0%	0%						
	PEAK HR FACTOR		0.790			0.898			0.868			0.000		0.891					
	APP/DEPART	373	/	758	973	/	1,016	583	/	0	0	/	155	0					
MD	11:00 AM	16	155	0	0	135	40	106	0	25	0	0	0	477	0	0	0	0	0
	11:15 AM	9	137	0	0	134	62	99	0	26	0	0	0	467	0	0	0	0	0
	11:30 AM	9	154	0	0	146	53	106	0	22	0	0	0	490	0	0	0	0	0
	11:45 AM	17	142	0	0	141	61	93	0	20	0	0	0	474	0	0	0	0	0
	12:00 PM	19	168	0	0	157	61	106	0	24	0	0	0	535	0	0	0	0	0
	12:15 PM	15	152	0	0	137	61	115	0	20	0	0	0	500	0	0	0	0	0
	12:30 PM	10	127	0	0	166	47	95	0	19	0	0	0	464	0	0	0	0	0
	12:45 PM	14	142	0	0	164	62	108	0	20	0	0	0	510	0	0	0	0	0
	VOLUMES	109	1,177	0	0	1,180	447	828	0	176	0	0	0	3,917	0	0	0	0	0
	APPROACH %	8%	92%	0%	0%	73%	27%	82%	0%	18%	0%	0%	0%						
	APP/DEPART	1,286	/	2,005	1,627	/	1,356	1,004	/	0	0	/	556	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	58	589	0	0	624	231	424	0	83	0	0	0	2,009					
	APPROACH %	9%	91%	0%	0%	73%	27%	84%	0%	16%	0%	0%	0%						
	PEAK HR FACTOR		0.865			0.946			0.939			0.000		0.939					
	APP/DEPART	647	/	1,013	855	/	707	507	/	0	0	/	289	0					
PM	04:00 PM	26	151	0	0	183	68	115	0	26	0	0	0	569	0	0	0	0	0
	4:15 PM	24	164	0	0	169	64	95	0	18	0	0	0	534	0	0	0	0	0
	4:30 PM	36	169	0	0	130	62	120	0	26	0	0	0	543	0	0	0	0	0
	4:45 PM	29	163	0	0	164	57	133	0	24	0	0	0	570	0	0	0	0	0
	5:00 PM	27	186	0	0	151	75	130	0	29	0	0	0	598	0	0	0	0	0
	5:15 PM	22	194	0	0	172	84	147	0	25	0	0	0	644	0	0	0	0	0
	5:30 PM	27	171	0	0	139	68	107	0	17	0	0	0	529	0	0	0	0	0
	5:45 PM	13	144	0	0	143	74	99	0	17	0	0	0	490	0	0	0	0	0
	VOLUMES	204	1,342	0	0	1,251	552	946	0	182	0	0	0	4,477	0	0	0	0	0
	APPROACH %	13%	87%	0%	0%	69%	31%	84%	0%	16%	0%	0%	0%						
	APP/DEPART	1,546	/	2,288	1,803	/	1,433	1,128	/	0	0	/	756	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	114	712	0	0	617	278	530	0	104	0	0	0	2,355					
	APPROACH %	14%	86%	0%	0%	69%	31%	84%	0%	16%	0%	0%	0%						
	PEAK HR FACTOR		0.956			0.874			0.922			0.000		0.914					
	APP/DEPART	826	/	1,242	895	/	721	634	/	0	0	/	392	0					

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	1	1
MD	11:00 AM	0	0	0	0	3	0	0	0	2	0	0	0	5
	11:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	11:30 AM	0	0	0	0	2	1	0	0	0	0	0	0	3
	11:45 AM	0	0	0	0	1	2	0	0	0	0	0	0	3
	12:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	12:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	TOTAL	0	0	0	0	6	7	0	0	2	0	0	0	15
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	4:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	2
	4:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	4	4	0	0	0	0	0	1	9
	TOTAL	0	0	0	0	6	8	0	0	0	0	1	1	16



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Mar 16, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Los Osos
EAST & WEST: Hwy 101 NB

PROJECT #: SC0843
LOCATION #: 82
CONTROL: SIGNAL

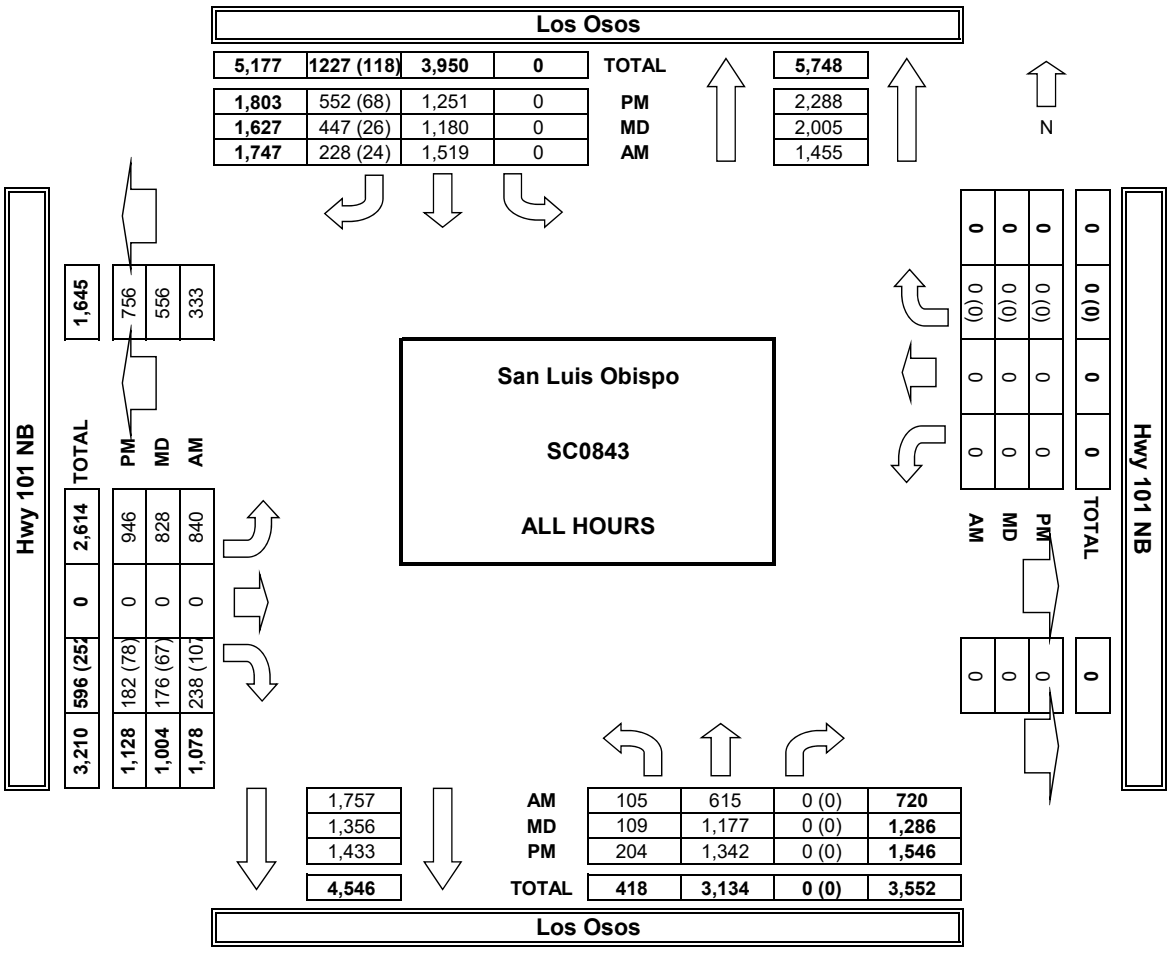
NOTES:

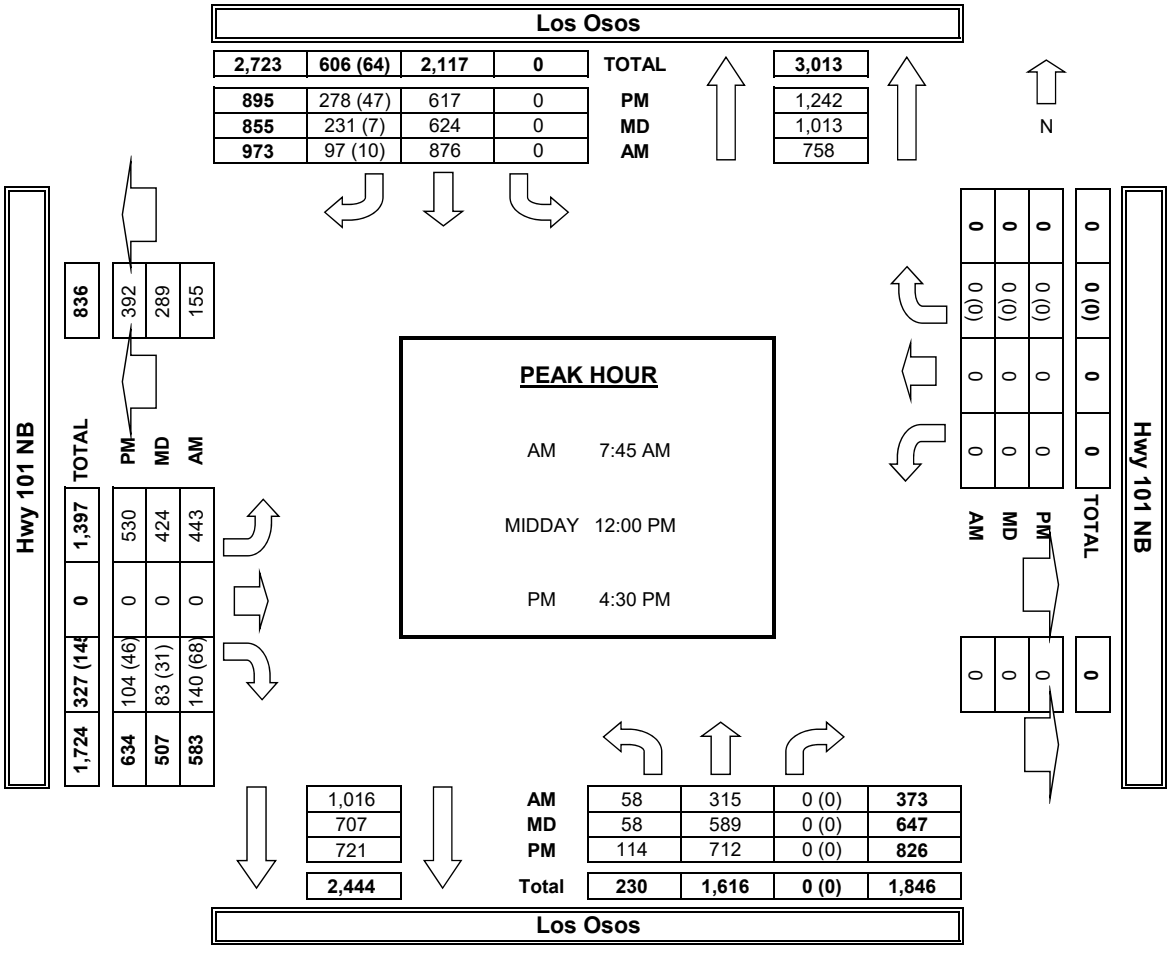
AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Los Osos			SOUTHBOUND Los Osos			EASTBOUND Hwy 101 NB			WESTBOUND Hwy 101 NB			
	LANES:	NL 1	NT 1	NR X	SL X	ST 1	SR 1	EL 1.5	ET X	ER 0.5	WL X	WT X	WR X	TOTAL
AM	7:30 AM	0	1	0	0	2	0	0	0	0	0	0	0	3
	7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:00 AM	0	0	1	0	2	0	1	0	0	0	0	0	4
	8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	9:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	9:15 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	VOLUMES	0	4	1	0	11	0	1	0	0	0	0	0	17
	APPROACH %	0%	80%	20%	0%	100%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	5	/	5	11	/	11	1	/	1	0	/	0	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	1	1	0	6	0	1	0	0	0	0	0	9
	APPROACH %	0%	50%	50%	0%	100%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.750			0.250			0.000		0.563
	APP/DEPART	2	/	2	6	/	6	1	/	1	0	/	0	0
MD	11:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	11:15 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	11:30 AM	1	1	0	0	2	0	1	0	0	0	0	0	5
	11:45 AM	0	4	0	0	0	0	0	0	0	0	0	0	4
	12:00 PM	0	2	0	0	4	0	0	0	0	0	0	0	6
	12:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	12:30 PM	0	9	0	0	1	0	0	0	0	0	0	0	10
	12:45 PM	0	1	0	0	1	1	0	0	0	0	0	0	3
	VOLUMES	1	19	0	0	13	1	1	0	0	0	0	0	35
	APPROACH %	5%	95%	0%	0%	93%	7%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	20	/	20	14	/	13	1	/	0	0	/	2	0
	BEGIN PEAK HR		11:45 AM											
	VOLUMES	0	16	0	0	5	0	0	0	0	0	0	0	21
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.444			0.313			0.000			0.000		0.525
	APP/DEPART	16	/	16	5	/	5	0	/	0	0	/	0	0
PM	04:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	4:15 PM	0	1	0	0	5	0	0	0	0	0	0	0	6
	4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	5:00 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	5:30 PM	0	2	0	0	3	0	0	0	0	0	0	0	5
	5:45 PM	0	0	0	0	3	0	0	0	0	0	0	0	3
	VOLUMES	0	7	0	0	14	0	1	0	0	0	0	1	23
	APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	0%	0%	0%	100%	
	APP/DEPART	7	/	9	14	/	14	1	/	0	1	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	3	0	0	8	0	0	0	0	0	0	1	12
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.375			0.400			0.000			0.250		0.500
	APP/DEPART	3	/	4	8	/	8	0	/	0	1	/	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Feb 3, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Higuera
EAST & WEST: Los Osos Valley

PROJECT #: SC0843
LOCATION #: 57
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Higuera			SOUTHBOUND Higuera			EASTBOUND Los Osos Valley			WESTBOUND Los Osos Valley				U-TURNS				
	LANES:	NL 1	NT 1	NR X	SL X	ST 1	SR 1	EL 2	ET X	ER 1	WL X	WT X	WR X	TOTAL	NB 0	SB 0	EB X	WB X	TTL
AM	7:00 AM	1	53	0	0	31	46	131	0	6	0	0	0	268	0	0	0	0	0
	7:15 AM	3	50	0	0	37	60	172	0	5	0	0	0	327	0	0	0	0	0
	7:30 AM	0	81	0	0	37	59	211	0	11	0	0	0	399	0	0	0	0	0
	7:45 AM	2	73	1	0	37	94	234	0	5	0	0	0	446	0	0	0	0	0
	8:00 AM	4	94	0	0	54	85	239	0	10	0	0	0	486	0	0	0	0	0
	8:15 AM	8	82	0	0	56	78	206	0	20	0	0	0	450	0	0	0	0	0
	8:30 AM	6	98	0	0	72	71	216	0	19	0	0	0	482	0	0	0	0	0
	8:45 AM	1	81	0	0	49	82	237	0	10	0	0	0	460	0	0	0	0	0
	VOLUMES	25	612	1	0	373	575	1,646	0	86	0	0	0	3,318	0	0	0	0	0
	APPROACH %	4%	96%	0%	0%	39%	61%	95%	0%	5%	0%	0%	0%						
	APP/DEPART	638	/	2,258	948	/	459	1,732	/	1	0	/	600	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	19	355	0	0	231	316	898	0	59	0	0	0	1,878					
	APPROACH %	5%	95%	0%	0%	42%	58%	94%	0%	6%	0%	0%	0%						
	PEAK HR FACTOR		0.899			0.956			0.961			0.000		0.966					
	APP/DEPART	374	/	1,253	547	/	290	957	/	0	0	/	335	0					
MD	11:15 AM	3	64	0	0	54	151	149	0	6	0	0	0	427	0	0	0	0	0
	11:30 AM	5	69	0	0	69	156	136	0	9	0	0	0	444	0	0	0	0	0
	11:45 AM	2	62	0	0	53	133	170	0	3	0	0	0	423	0	0	1	0	1
	12:00 PM	3	46	0	0	76	157	144	0	8	0	0	0	434	0	0	0	0	0
	12:15 PM	3	44	0	0	66	141	155	0	7	0	0	0	416	0	0	0	0	0
	12:30 PM	7	64	0	0	46	116	169	0	6	0	0	0	408	0	0	0	0	0
	12:45 PM	9	51	0	0	62	125	181	0	4	0	0	0	432	0	0	1	0	1
	1:00 PM	8	59	0	0	65	137	162	0	5	0	0	0	436	0	0	0	0	0
	VOLUMES	40	459	0	0	491	1,116	1,266	0	48	0	0	0	3,420	0	0	2	0	2
	APPROACH %	8%	92%	0%	0%	31%	69%	96%	0%	4%	0%	0%	0%						
	APP/DEPART	499	/	1,723	1,607	/	539	1,314	/	0	0	/	1,158	0					
	BEGIN PEAK HR		11:15 AM																
	VOLUMES	13	241	0	0	252	597	599	0	26	0	0	0	1,728					
	APPROACH %	5%	95%	0%	0%	30%	70%	96%	0%	4%	0%	0%	0%						
	PEAK HR FACTOR		0.858			0.911			0.903			0.000		0.973					
	APP/DEPART	254	/	839	849	/	278	625	/	0	0	/	611	0					
PM	04:00 PM	8	63	0	0	110	185	161	0	22	0	0	0	549	0	0	0	0	0
	4:15 PM	3	32	0	0	91	161	149	0	19	0	0	0	455	0	0	0	0	0
	4:30 PM	5	56	0	0	121	169	152	0	12	0	0	0	515	0	0	0	0	0
	4:45 PM	7	64	0	0	105	161	152	0	18	0	0	0	507	0	0	0	0	0
	5:00 PM	7	49	0	0	133	164	120	0	16	0	0	0	489	0	0	0	0	0
	5:15 PM	7	51	0	0	111	173	153	0	22	0	0	0	517	0	0	0	0	0
	5:30 PM	6	44	0	0	101	178	157	0	14	0	0	0	500	0	0	0	0	0
	5:45 PM	10	49	0	0	84	163	156	0	18	0	0	0	480	0	0	0	0	0
	VOLUMES	53	408	0	0	856	1,354	1,200	0	141	0	0	0	4,012	0	0	0	0	0
	APPROACH %	11%	89%	0%	0%	39%	61%	89%	0%	11%	0%	0%	0%						
	APP/DEPART	461	/	1,608	2,210	/	997	1,341	/	0	0	/	1,407	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	26	220	0	0	470	667	577	0	68	0	0	0	2,028					
	APPROACH %	11%	89%	0%	0%	41%	59%	89%	0%	11%	0%	0%	0%						
	PEAK HR FACTOR		0.866			0.957			0.921			0.000		0.981					
	APP/DEPART	246	/	797	1,137	/	538	645	/	0	0	/	693	0					

Higuera

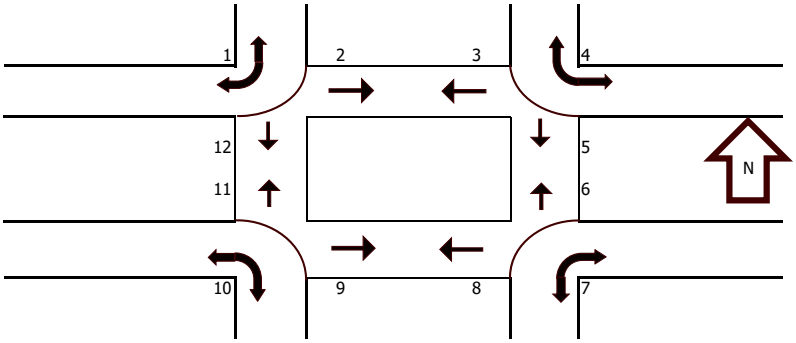
NORTH SIDE

Los Osos Valley WEST SIDE EAST SIDE **Los Osos Valley**

SOUTH SIDE

Higuera

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
	7:45 AM	0	0	0	0	0	1	0	0	1	0	0	12	14
	8:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	2
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	1	0	2	1	0	1	15	20
MD	11:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	2
	11:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	2
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	12:30 PM	0	0	0	0	0	0	0	0	0	0	1	2	3
	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	1:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	2
	TOTAL	0	0	0	0	0	1	0	3	1	0	3	4	12
PM	4:00 PM	0	0	0	0	0	0	0	0	1	0	0	4	5
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	1	0	1	8	10



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Feb 3, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Higuera
EAST & WEST: Los Osos Valley

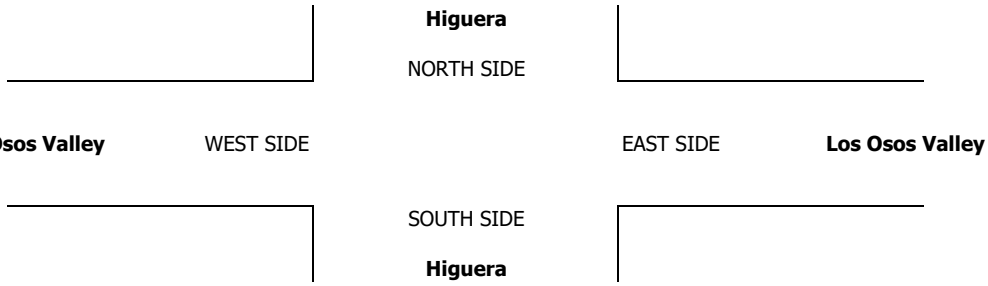
PROJECT #: SC0843
LOCATION #: 57
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

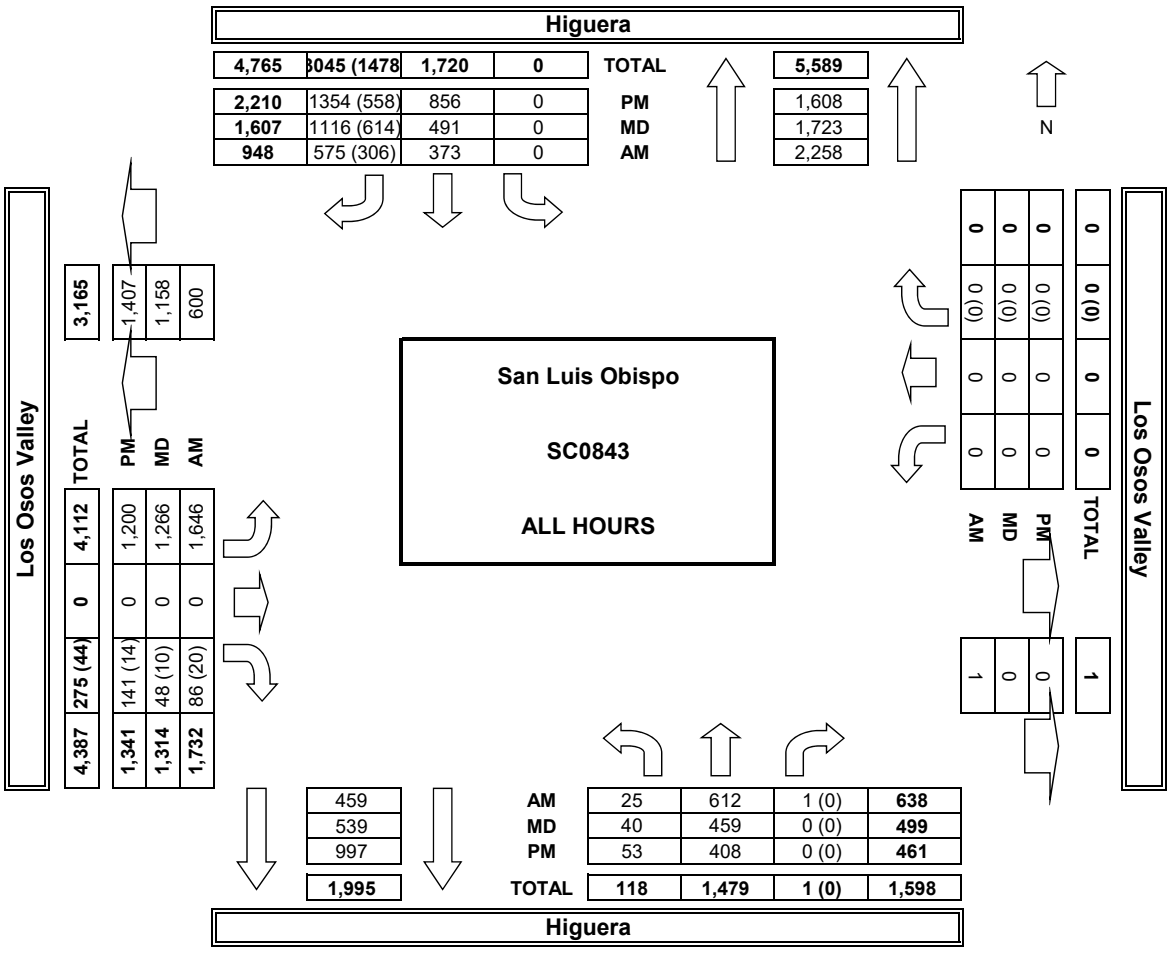
▲ N
◄ W E ►
S ▼

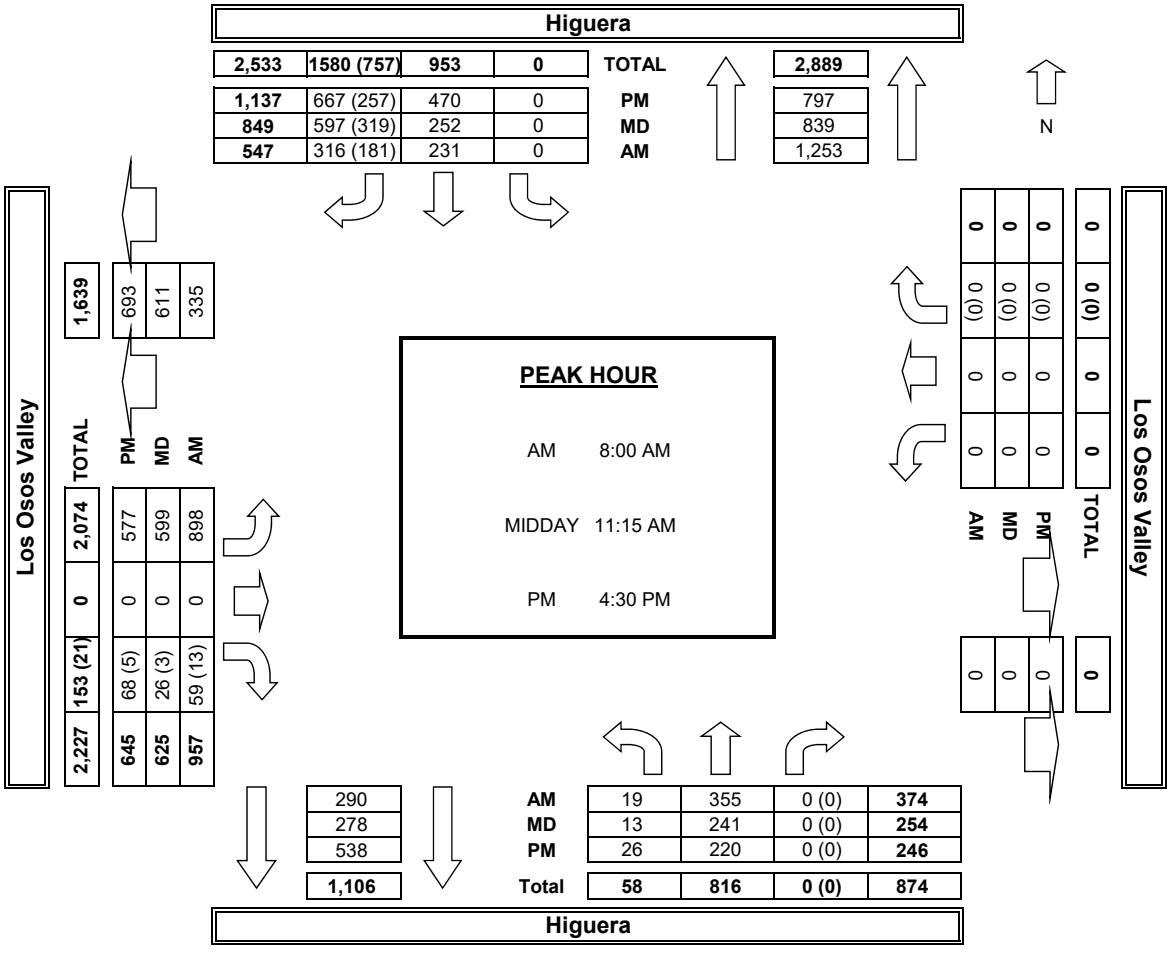
		NORTHBOUND Higuera			SOUTHBOUND Higuera			EASTBOUND Los Osos Valley			WESTBOUND Los Osos Valley			
	LANES:	NL 1	NT 1	NR X	SL X	ST 1	SR 1	EL 2	ET X	ER 1	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	0	0	0	2	2	1	0	0	0	0	0	5
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	1	0	0	0	2	1	0	0	0	0	0	4
	7:45 AM	0	1	0	0	0	1	0	0	1	0	0	0	3
	8:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	8:15 AM	0	1	0	0	0	0	1	0	0	0	0	0	2
	8:30 AM	0	0	0	0	2	0	0	0	1	0	0	0	3
	8:45 AM	0	1	0	0	4	0	1	0	0	0	0	0	6
	VOLUMES	1	4	0	0	8	5	4	0	2	0	0	0	24
	APPROACH %	20%	80%	0%	0%	62%	38%	67%	0%	33%	0%	0%	0%	
	APP/DEPART	5	/	8	13	/	10	6	/	0	0	/	6	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	1	2	0	0	6	0	2	0	1	0	0	0	12
	APPROACH %	33%	67%	0%	0%	100%	0%	67%	0%	33%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.375			0.750			0.000		0.500
	APP/DEPART	3	/	4	6	/	7	3	/	0	0	/	1	0
MD	11:15 AM	0	2	0	0	2	0	1	0	1	0	0	0	6
	11:30 AM	0	1	0	0	1	2	1	0	0	0	0	0	5
	11:45 AM	0	4	0	0	2	2	2	0	0	0	0	0	10
	12:00 PM	0	3	0	0	3	2	0	0	2	0	0	0	10
	12:15 PM	0	0	0	0	0	2	0	0	1	0	0	0	3
	12:30 PM	0	0	0	0	2	2	0	0	0	0	0	0	4
	12:45 PM	0	6	0	0	0	0	2	0	0	0	0	0	8
	1:00 PM	0	2	0	0	1	1	2	0	0	0	0	0	6
	VOLUMES	0	18	0	0	11	11	8	0	4	0	0	0	52
	APPROACH %	0%	100%	0%	0%	50%	50%	67%	0%	33%	0%	0%	0%	
	APP/DEPART	18	/	26	22	/	15	12	/	0	0	/	11	0
	BEGIN PEAK HR		11:15 AM											
	VOLUMES	0	10	0	0	8	6	4	0	3	0	0	0	31
	APPROACH %	0%	100%	0%	0%	57%	43%	57%	0%	43%	0%	0%	0%	
	PEAK HR FACTOR		0.625			0.700			0.875			0.000		0.775
	APP/DEPART	10	/	14	14	/	11	7	/	0	0	/	6	0
PM	04:00 PM	0	2	0	0	3	1	5	0	0	0	0	0	11
	4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	4:30 PM	1	1	0	0	2	1	0	0	0	0	0	0	5
	4:45 PM	0	1	0	0	0	0	0	0	1	0	0	0	2
	5:00 PM	0	1	0	0	2	0	0	0	1	0	0	0	4
	5:15 PM	1	5	0	0	3	0	1	0	0	0	0	0	10
	5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	2	10	0	0	10	5	6	0	2	0	0	0	35
	APPROACH %	17%	83%	0%	0%	67%	33%	75%	0%	25%	0%	0%	0%	
	APP/DEPART	12	/	16	15	/	12	8	/	0	0	/	7	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	2	8	0	0	7	1	1	0	2	0	0	0	21
	APPROACH %	20%	80%	0%	0%	88%	13%	33%	0%	67%	0%	0%	0%	
	PEAK HR FACTOR		0.417			0.667			0.750			0.000		0.525
	APP/DEPART	10	/	9	8	/	9	3	/	0	0	/	3	0



AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Feb 3, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Higuera
EAST & WEST: Vachell

PROJECT #: SC0843
LOCATION #: 56
CONTROL: STOP W

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Higuera			SOUTHBOUND Higuera			EASTBOUND Vachell			WESTBOUND Vachell				U-TURNS				
	LANES:	NL X	NT 2	NR 0	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL	NB 0	SB 0	EB X	WB 0	TTL
AM	7:00 AM	0	149	28	12	72	0	0	0	0	7	0	14	282	0	0	0	0	0
	7:15 AM	0	204	34	2	84	0	0	0	0	11	0	14	349	0	0	0	0	0
	7:30 AM	0	245	34	12	100	0	0	0	0	15	0	8	414	0	0	0	0	0
	7:45 AM	0	259	68	13	115	0	0	0	0	19	0	27	501	0	0	0	0	0
	8:00 AM	0	244	70	17	113	0	0	0	0	19	0	20	483	0	0	0	0	0
	8:15 AM	0	230	58	13	126	0	0	0	0	22	0	21	470	0	0	0	0	0
	8:30 AM	0	263	54	16	120	0	0	0	0	14	0	30	497	0	0	0	0	0
	8:45 AM	0	264	46	16	117	0	0	0	0	15	0	16	474	0	0	0	0	0
	VOLUMES	0	1,858	392	101	847	0	0	0	0	122	0	150	3,470	0	0	0	0	0
	APPROACH %	0%	83%	17%	11%	89%	0%	0%	0%	0%	45%	0%	55%						
	APP/DEPART	2,250	/	2,008	948	/	969	0	/	493	272	/	0	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	0	996	250	59	474	0	0	0	0	74	0	98	1,951					
	APPROACH %	0%	80%	20%	11%	89%	0%	0%	0%	0%	43%	0%	57%						
	PEAK HR FACTOR		0.953			0.959			0.000			0.935		0.974					
	APP/DEPART	1,246	/	1,094	533	/	548	0	/	309	172	/	0	0					
MD	11:15 AM	0	209	28	11	186	0	0	0	0	16	0	21	471	0	0	0	0	0
	11:30 AM	0	174	19	15	211	0	0	0	0	18	0	30	467	0	0	0	0	0
	11:45 AM	0	179	36	18	170	0	0	0	0	15	0	23	441	0	0	0	0	0
	12:00 PM	0	164	25	27	213	0	0	0	0	22	0	23	474	0	0	0	0	0
	12:15 PM	0	192	38	17	183	0	0	0	0	9	0	13	452	0	0	0	0	0
	12:30 PM	0	205	27	13	155	0	0	0	0	14	0	27	441	0	0	0	0	0
	12:45 PM	0	170	29	16	155	0	0	0	0	22	0	24	416	0	0	0	0	0
	1:00 PM	0	175	40	33	198	0	0	0	0	9	0	20	475	0	0	0	0	0
	VOLUMES	0	1,468	242	150	1,471	0	0	0	0	125	0	181	3,637	0	0	0	0	0
	APPROACH %	0%	86%	14%	9%	91%	0%	0%	0%	0%	41%	0%	59%						
	APP/DEPART	1,710	/	1,649	1,621	/	1,596	0	/	392	306	/	0	0					
	BEGIN PEAK HR		11:15 AM																
	VOLUMES	0	726	108	71	780	0	0	0	0	71	0	97	1,853					
	APPROACH %	0%	87%	13%	8%	92%	0%	0%	0%	0%	42%	0%	58%						
	PEAK HR FACTOR		0.880			0.886			0.000			0.875		0.977					
	APP/DEPART	834	/	823	851	/	851	0	/	179	168	/	0	0					
PM	04:00 PM	0	201	30	22	286	0	0	0	0	7	0	28	574	0	0	0	0	0
	4:15 PM	0	155	36	25	228	0	0	0	0	22	0	37	503	0	0	0	0	0
	4:30 PM	0	174	36	28	255	0	0	0	0	16	0	51	560	0	0	0	0	0
	4:45 PM	0	178	26	38	266	0	0	0	0	15	0	31	554	0	0	0	0	0
	5:00 PM	0	151	32	31	279	0	0	0	0	12	0	57	562	0	0	0	0	0
	5:15 PM	0	167	38	41	288	0	0	0	0	11	0	47	592	0	0	0	0	0
	5:30 PM	0	162	31	25	267	0	0	0	0	15	0	29	529	0	0	0	0	0
	5:45 PM	0	150	32	26	216	0	0	0	0	15	0	20	459	0	0	0	0	0
	VOLUMES	0	1,338	261	236	2,085	0	0	0	0	113	0	300	4,333	0	0	0	0	0
	APPROACH %	0%	84%	16%	10%	90%	0%	0%	0%	0%	27%	0%	73%						
	APP/DEPART	1,599	/	1,638	2,321	/	2,198	0	/	497	413	/	0	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	670	132	138	1,088	0	0	0	0	54	0	186	2,268					
	APPROACH %	0%	84%	16%	11%	89%	0%	0%	0%	0%	23%	0%	78%						
	PEAK HR FACTOR		0.955			0.932			0.000			0.870		0.958					
	APP/DEPART	802	/	856	1,226	/	1,142	0	/	270	240	/	0	0					

Higuera

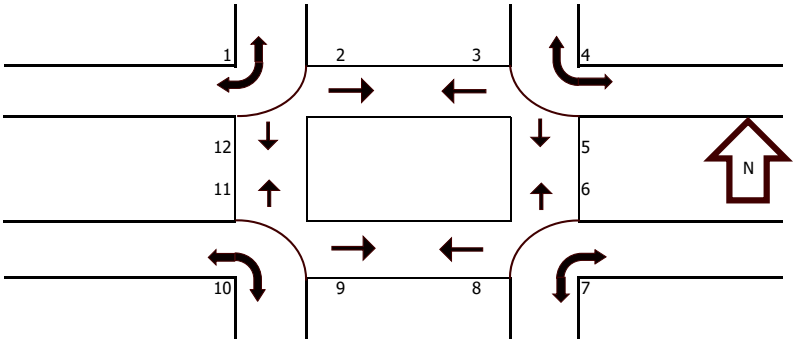
NORTH SIDE

Vachell WEST SIDE EAST SIDE **Vachell**

SOUTH SIDE

Higuera

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	3
	7:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	3
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	7	0	7
MD	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
	12:15 PM	0	0	0	0	0	1	0	0	0	0	2	0	3
	12:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	3
	12:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	1:00 PM	0	0	0	0	0	2	0	0	0	0	1	0	3
	TOTAL	0	0	0	0	0	4	0	0	0	0	9	0	13
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	5
	4:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
	4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	0	0	0	0	0	0	0	0	10	0	10



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	San Luis Obispo	PROJECT #:	SC0843
Wed, Feb 3, 16	NORTH & SOUTH:	Higuera	LOCATION #:	56
	EAST & WEST:	Vachell	CONTROL:	STOP W

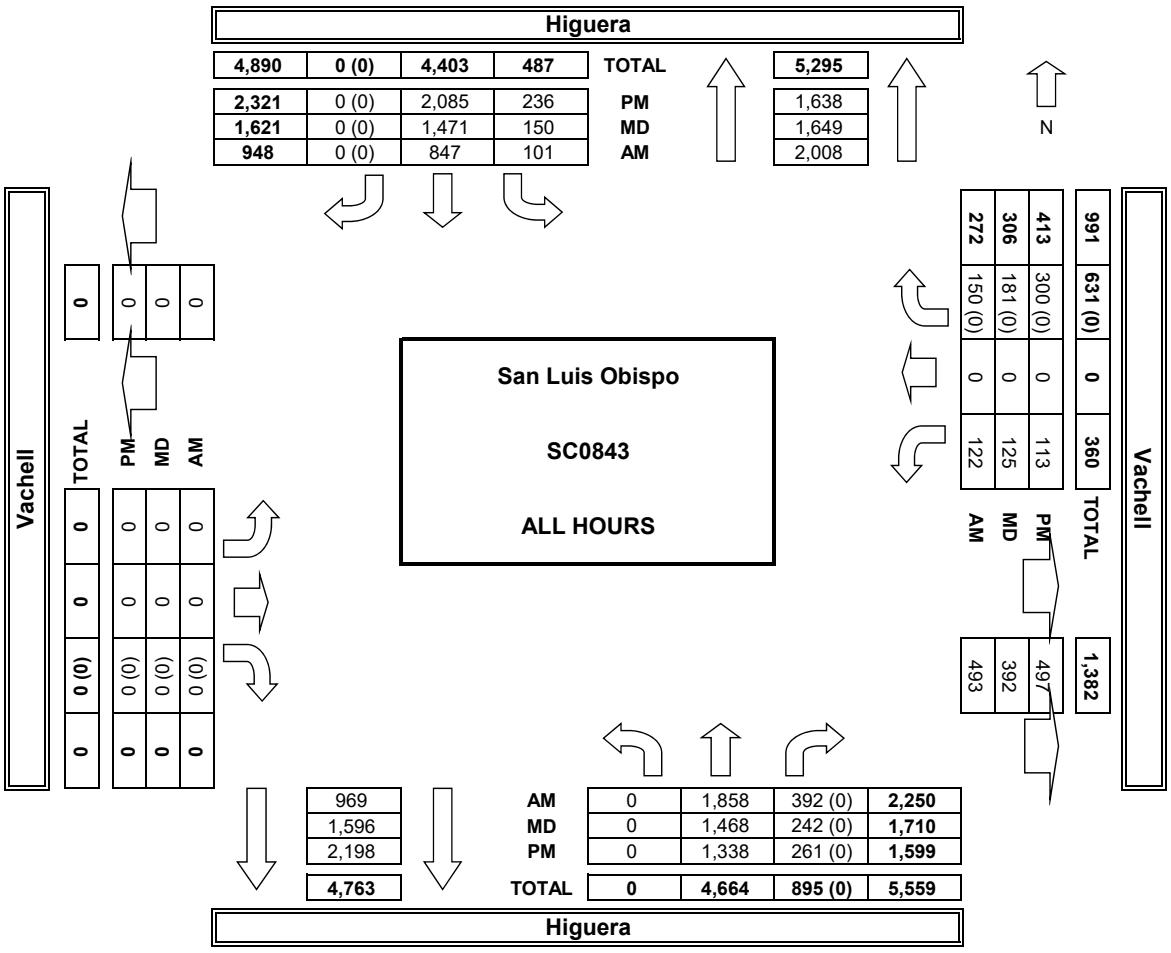
NOTES:

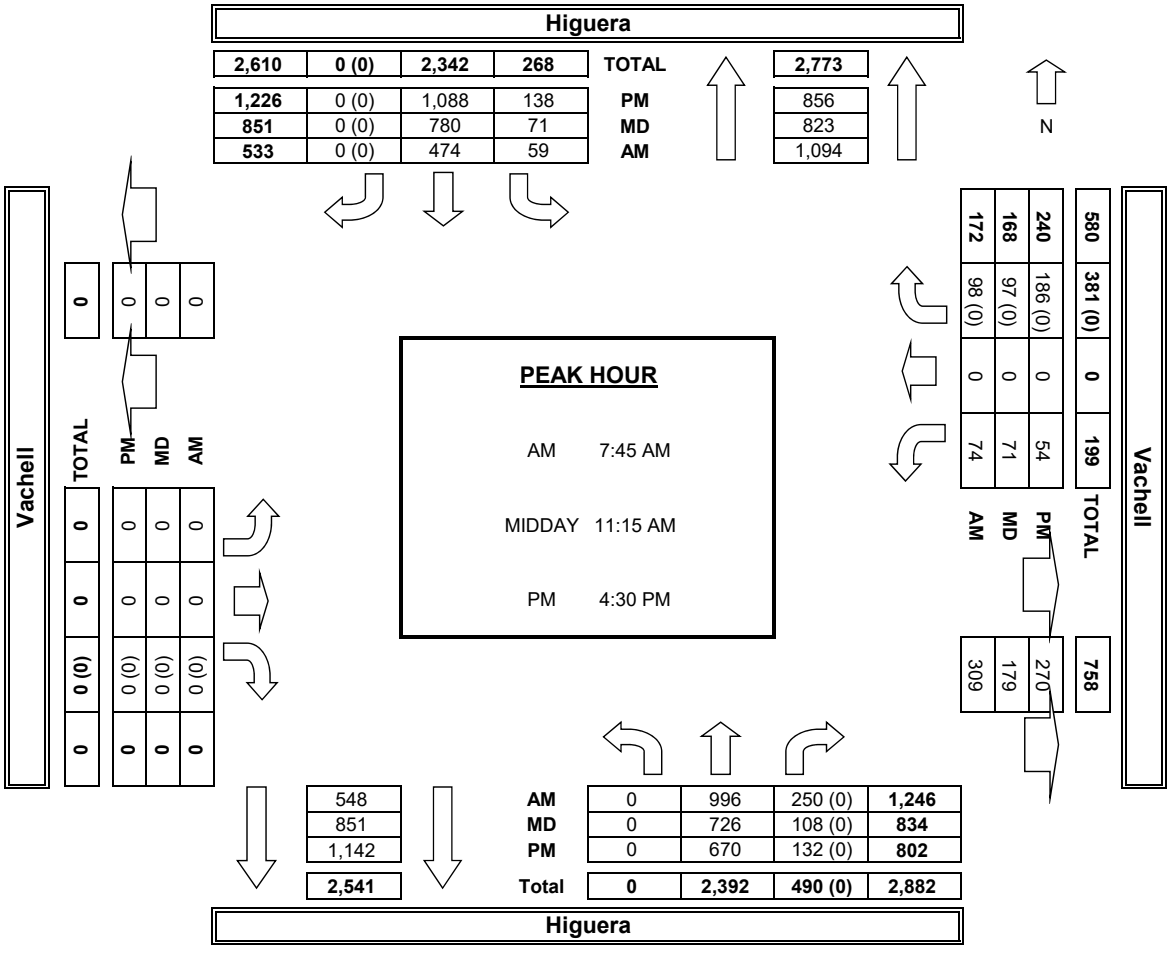
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Higuera			SOUTHBOUND Higuera			EASTBOUND Vachell			WESTBOUND Vachell			
	LANES:	NL X	NT 2	NR 0	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL
AM	7:00 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	7:15 AM	0	1	0	1	1	0	0	0	0	0	0	0	3
	7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	8:45 AM	0	3	0	0	4	0	0	0	0	0	0	0	7
	VOLUMES	0	8	1	1	11	0	0	0	0	0	0	0	21
	APPROACH %	0%	89%	11%	8%	92%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	9	/	8	12	/	11	0	/	2	0	/	0	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	5	1	0	5	0	0	0	0	0	0	0	11
	APPROACH %	0%	83%	17%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.313			0.000			0.000		0.393
	APP/DEPART	6	/	5	5	/	5	0	/	1	0	/	0	0
MD	11:15 AM	0	3	0	1	4	0	0	0	0	0	0	1	9
	11:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	4
	11:45 AM	0	7	0	0	5	0	0	0	0	0	0	0	12
	12:00 PM	0	2	0	0	5	0	0	0	0	0	0	0	7
	12:15 PM	0	0	0	0	4	0	0	0	0	0	0	0	4
	12:30 PM	0	0	0	0	3	0	0	0	0	0	0	0	3
	12:45 PM	0	7	0	0	0	0	0	0	0	0	0	0	7
	1:00 PM	0	5	0	0	2	0	0	0	0	0	0	0	7
	VOLUMES	0	26	0	1	25	0	0	0	0	0	0	1	53
	APPROACH %	0%	100%	0%	4%	96%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	26	/	27	26	/	25	0	/	1	1	/	0	0
	BEGIN PEAK HR		11:15 AM											
	VOLUMES	0	14	0	1	16	0	0	0	0	0	0	1	32
	APPROACH %	0%	100%	0%	6%	94%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.500			0.850			0.000			0.250		0.667
	APP/DEPART	14	/	15	17	/	16	0	/	1	1	/	0	0
PM	04:00 PM	0	4	0	0	2	0	0	0	0	1	0	0	7
	4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	4:45 PM	0	1	0	0	1	0	0	0	0	1	0	0	3
	5:00 PM	0	3	0	0	1	0	0	0	0	0	0	0	4
	5:15 PM	0	3	0	0	2	0	0	0	0	0	0	0	5
	5:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	5:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	VOLUMES	0	12	0	0	12	0	0	0	0	2	0	0	26
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	
	APP/DEPART	12	/	12	12	/	14	0	/	0	2	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	7	0	0	6	0	0	0	0	1	0	0	14
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.583			0.750			0.000			0.250		0.700
	APP/DEPART	7	/	7	6	/	7	0	/	0	1	/	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Feb 3, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Higuera
EAST & WEST: Suburban

PROJECT #: SC0843
LOCATION #: 55
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER — ▲ N ◄ W E ► S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Higuera			SOUTHBOUND Higuera			EASTBOUND Suburban			WESTBOUND Suburban				U-TURNS				
	LANES:	NL X	NT 2	NR 0	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL	NB X	SB 0	EB X	WB 0	TTL
AM	7:00 AM	0	115	47	6	68	0	0	0	0	9	0	5	250	0	0	0	0	0
	7:15 AM	0	130	60	8	75	0	0	0	0	11	0	9	293	0	0	0	0	0
	7:30 AM	0	187	66	4	80	0	0	0	0	12	0	7	356	0	0	0	0	0
	7:45 AM	0	235	66	9	105	0	0	0	0	16	0	6	437	0	0	0	0	0
	8:00 AM	0	224	81	14	130	0	0	0	0	19	0	16	484	0	0	0	0	0
	8:15 AM	0	180	58	6	113	0	0	0	0	22	0	9	388	0	0	0	0	0
	8:30 AM	0	200	66	7	124	0	0	0	0	20	0	14	431	0	0	0	0	0
	8:45 AM	0	199	82	8	125	0	0	0	0	20	0	14	448	0	0	0	0	0
	VOLUMES	0	1,470	526	62	820	0	0	0	0	129	0	80	3,087	0	0	0	0	0
	APPROACH %	0%	74%	26%	7%	93%	0%	0%	0%	0%	62%	0%	38%						
	APP/DEPART	1,996	/	1,550	882	/	949	0	/	588	209	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	803	287	35	492	0	0	0	0	81	0	53	1,751					
	APPROACH %	0%	74%	26%	7%	93%	0%	0%	0%	0%	60%	0%	40%						
	PEAK HR FACTOR		0.893			0.915			0.000			0.957		0.904					
	APP/DEPART	1,090	/	856	527	/	573	0	/	322	134	/	0	0					
MD	11:15 AM	0	165	32	9	141	0	0	0	0	54	0	32	433	0	0	0	0	0
	11:30 AM	0	170	37	10	152	0	0	0	0	63	0	19	451	0	0	0	0	0
	11:45 AM	0	158	41	12	142	0	0	0	0	49	0	34	436	0	0	0	0	0
	12:00 PM	0	168	32	9	165	0	0	0	0	64	0	44	482	0	0	0	0	0
	12:15 PM	0	153	27	12	157	0	0	0	0	57	0	40	446	0	0	0	0	0
	12:30 PM	0	166	49	14	139	0	0	0	0	41	0	37	446	0	0	0	0	0
	12:45 PM	0	176	43	15	137	0	0	0	0	51	0	30	452	0	0	0	0	0
	1:00 PM	0	154	43	14	157	0	0	0	0	59	0	37	464	0	0	0	0	0
	VOLUMES	0	1,310	304	95	1,190	0	0	0	0	438	0	273	3,610	0	0	0	0	0
	APPROACH %	0%	81%	19%	7%	93%	0%	0%	0%	0%	62%	0%	38%						
	APP/DEPART	1,614	/	1,583	1,285	/	1,628	0	/	399	711	/	0	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	0	663	151	50	598	0	0	0	0	213	0	151	1,826					
	APPROACH %	0%	81%	19%	8%	92%	0%	0%	0%	0%	59%	0%	41%						
	PEAK HR FACTOR		0.929			0.931			0.000			0.843		0.947					
	APP/DEPART	814	/	814	648	/	811	0	/	201	364	/	0	0					
PM	04:00 PM	0	165	39	13	196	0	0	0	0	80	0	54	547	0	0	0	0	0
	4:15 PM	0	158	29	8	195	0	0	0	0	65	0	43	498	0	0	0	0	0
	4:30 PM	0	177	41	10	232	0	0	0	0	82	0	34	576	0	0	0	0	0
	4:45 PM	0	181	35	5	218	0	0	0	0	87	0	39	565	0	0	0	0	0
	5:00 PM	0	182	29	5	257	0	0	0	0	63	0	55	591	0	0	0	0	0
	5:15 PM	0	170	31	10	233	0	0	0	0	68	0	58	570	0	1	0	0	1
	5:30 PM	1	169	33	9	219	0	0	0	0	87	0	58	576	1	0	0	0	1
	5:45 PM	0	167	30	7	193	0	0	0	0	55	0	28	480	0	0	0	0	0
	VOLUMES	1	1,369	267	67	1,743	0	0	0	0	587	0	369	4,403	1	1	0	0	2
	APPROACH %	0%	84%	16%	4%	96%	0%	0%	0%	0%	61%	0%	39%						
	APP/DEPART	1,637	/	1,739	1,810	/	2,331	0	/	333	956	/	0	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	1	702	128	29	927	0	0	0	0	305	0	210	2,302					
	APPROACH %	0%	84%	15%	3%	97%	0%	0%	0%	0%	59%	0%	41%						
	PEAK HR FACTOR		0.953			0.912			0.000			0.888		0.974					
	APP/DEPART	831	/	913	956	/	1,233	0	/	156	515	/	0	0					

Higuera

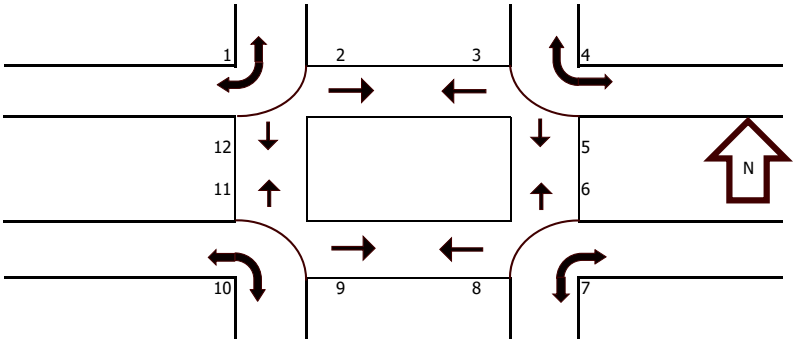
NORTH SIDE

Suburban WEST SIDE EAST SIDE **Suburban**

SOUTH SIDE

Higuera

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	1	0	0	0	1	0	0	1	0	0	0	3
	7:30 AM	0	0	2	0	0	0	0	0	0	0	2	1	5
	7:45 AM	0	2	3	0	0	0	0	0	1	0	0	4	10
	8:00 AM	0	1	0	1	0	1	0	0	0	0	1	0	4
	8:15 AM	0	2	0	0	0	0	0	0	0	0	2	0	4
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	1	1	0	0	0	0	0	0	0	2
	TOTAL	0	6	5	2	1	2	0	0	2	0	5	5	28
MD	11:15 AM	0	0	0	0	1	1	0	0	0	0	0	0	2
	11:30 AM	0	0	2	1	0	0	0	0	0	0	2	2	7
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	2	0	1	0	1	2	0	0	0	1	1	8
	12:15 PM	0	0	1	1	0	0	1	1	0	0	0	1	5
	12:30 PM	0	0	0	1	0	3	0	0	0	0	2	0	6
	12:45 PM	0	1	0	1	1	1	0	0	0	0	1	0	5
	1:00 PM	0	0	1	0	0	1	0	0	0	0	1	0	3
	TOTAL	0	3	4	5	2	7	3	1	0	0	7	4	36
PM	4:00 PM	0	6	0	0	0	0	0	0	0	0	11	0	17
	4:15 PM	0	4	1	1	0	0	0	0	0	0	4	2	12
	4:30 PM	0	0	2	0	0	0	0	0	0	0	1	2	5
	4:45 PM	0	1	2	0	0	0	0	1	0	0	1	1	6
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	5:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	2
	5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	11	7	2	0	0	0	1	0	0	17	6	44



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	San Luis Obispo	PROJECT #:	SC0843
Wed, Feb 3, 16	NORTH & SOUTH:	Higuera	LOCATION #:	55
	EAST & WEST:	Suburban	CONTROL:	SIGNAL

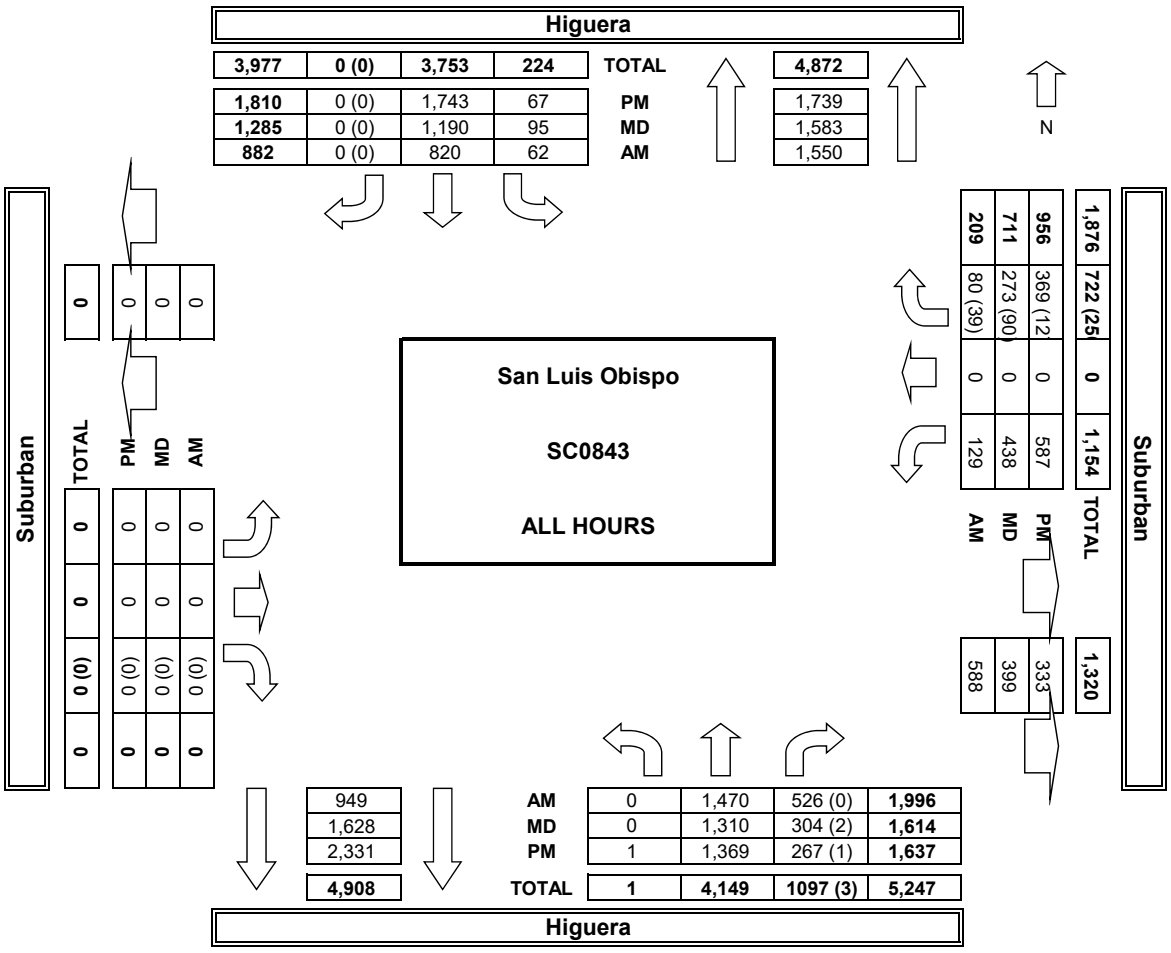
NOTES:

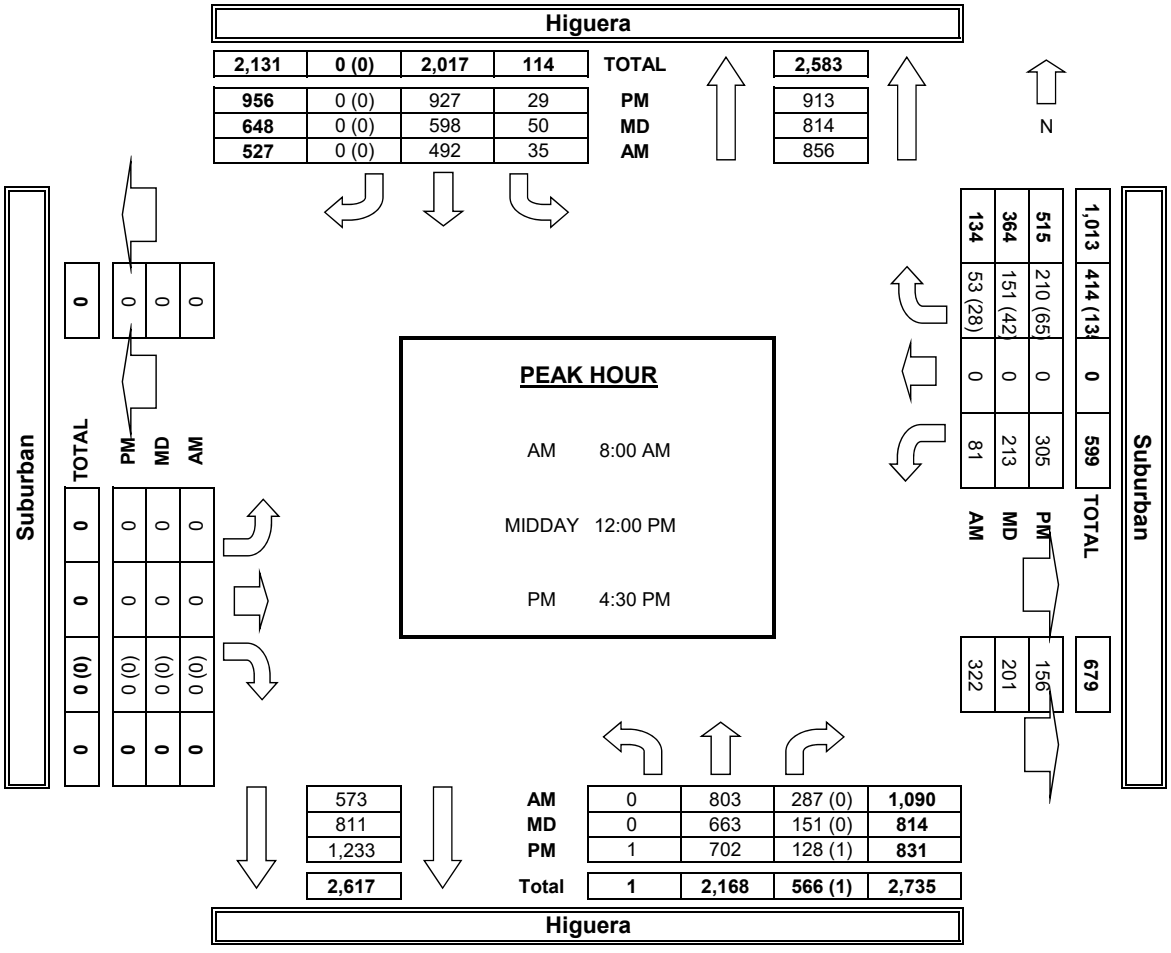
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Higuera			SOUTHBOUND Higuera			EASTBOUND Suburban			WESTBOUND Suburban			
	LANES:	NL X	NT 2	NR 0	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL
AM	7:00 AM	0	2	0	0	2	0	0	0	0	2	0	0	6
	7:15 AM	0	0	0	1	1	0	0	0	0	0	0	0	2
	7:30 AM	0	1	0	0	1	0	0	0	0	1	0	0	3
	7:45 AM	0	1	1	0	1	0	0	0	0	0	0	0	3
	8:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	8:15 AM	0	1	1	0	0	0	0	0	0	0	0	0	2
	8:30 AM	0	0	1	0	2	0	0	0	0	0	0	0	3
	8:45 AM	0	1	1	0	4	0	0	0	0	0	0	0	6
	VOLUMES	0	6	5	1	11	0	0	0	0	3	0	0	26
	APPROACH %	0%	55%	45%	8%	92%	0%	0%	0%	0%	100%	0%	0%	
	APP/DEPART	11	/	6	12	/	14	0	/	6	3	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	4	1	1	5	0	0	0	0	3	0	0	14
	APPROACH %	0%	80%	20%	17%	83%	0%	0%	0%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.625			0.750			0.000			0.375		0.583
	APP/DEPART	5	/	4	6	/	8	0	/	2	3	/	0	0
MD	11:15 AM	0	2	0	0	3	0	0	0	0	0	0	0	5
	11:30 AM	0	0	2	0	3	0	0	0	0	0	0	1	6
	11:45 AM	0	7	0	0	0	0	0	0	0	0	0	0	7
	12:00 PM	0	4	0	1	5	0	0	0	0	2	0	0	12
	12:15 PM	0	0	0	0	0	0	0	0	0	3	0	0	3
	12:30 PM	0	0	0	0	3	0	0	0	0	1	0	0	4
	12:45 PM	0	0	5	0	0	0	0	0	0	0	0	0	5
	1:00 PM	0	4	0	0	2	0	0	0	0	0	0	0	6
	VOLUMES	0	17	7	1	16	0	0	0	0	6	0	1	48
	APPROACH %	0%	71%	29%	6%	94%	0%	0%	0%	0%	86%	0%	14%	
	APP/DEPART	24	/	18	17	/	22	0	/	8	7	/	0	0
	BEGIN PEAK HR		11:15 AM											
	VOLUMES	0	13	2	1	11	0	0	0	0	2	0	1	30
	APPROACH %	0%	87%	13%	8%	92%	0%	0%	0%	0%	67%	0%	33%	
	PEAK HR FACTOR		0.536			0.500			0.000			0.375		0.625
	APP/DEPART	15	/	14	12	/	13	0	/	3	3	/	0	0
PM	04:00 PM	0	2	2	0	2	0	0	0	0	1	0	0	7
	4:15 PM	0	0	0	1	0	0	0	0	0	0	0	1	2
	4:30 PM	0	2	0	0	3	0	0	0	0	0	0	0	5
	4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	1	2
	5:15 PM	0	2	3	0	3	0	0	0	0	0	0	0	8
	5:30 PM	0	0	1	0	2	0	0	0	0	4	0	0	7
	5:45 PM	0	0	0	0	2	0	0	0	0	0	0	1	3
	VOLUMES	0	8	6	1	12	0	0	0	0	5	0	3	35
	APPROACH %	0%	57%	43%	8%	92%	0%	0%	0%	0%	63%	0%	38%	
	APP/DEPART	14	/	11	13	/	17	0	/	7	8	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	3	4	0	7	0	0	0	0	4	0	2	20
	APPROACH %	0%	43%	57%	0%	100%	0%	0%	0%	0%	67%	0%	33%	
	PEAK HR FACTOR		0.350			0.583			0.000			0.375		0.625
	APP/DEPART	7	/	5	7	/	11	0	/	4	6	/	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Feb 3, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Higuera
EAST & WEST: Tank Farm

PROJECT #: SC0843
LOCATION #: 54
CONTROL: SIGNAL

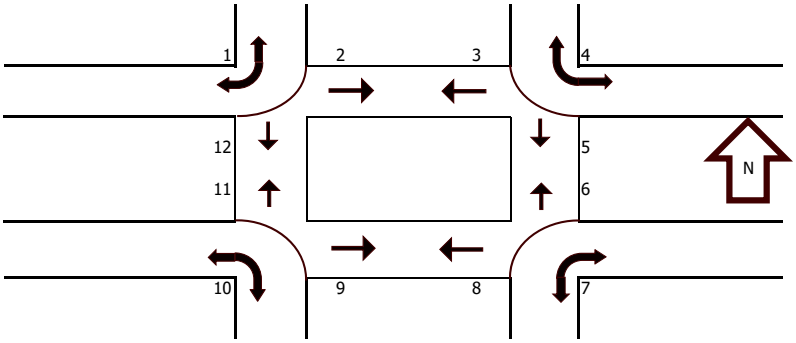
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Higuera			SOUTHBOUND Higuera			EASTBOUND Tank Farm			WESTBOUND Tank Farm				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 0.5	ET 0.5	ER 1	WL 1.5	WT 0.5	WR 1	TOTAL	NB X	SB X	EB 0	WB X	TTL
AM	7:00 AM	1	40	83	30	46	1	7	2	0	34	0	36	280	0	0	0	0	0
	7:15 AM	0	62	84	29	38	0	4	0	4	46	0	56	323	0	0	0	0	0
	7:30 AM	0	85	133	47	49	2	12	6	2	46	1	48	431	0	0	0	0	0
	7:45 AM	1	80	133	88	52	1	11	3	6	57	0	58	490	0	0	0	0	0
	8:00 AM	5	85	116	81	75	2	4	5	6	56	0	50	485	0	0	0	0	0
	8:15 AM	3	74	125	78	64	2	6	4	6	51	2	74	489	0	0	0	0	0
	8:30 AM	3	85	139	67	61	2	2	2	7	69	2	91	530	0	0	0	0	0
	8:45 AM	5	77	134	70	64	2	7	2	6	77	3	69	516	0	0	0	0	0
	VOLUMES	18	588	947	490	449	12	53	24	37	436	8	482	3,544	0	0	0	0	0
	APPROACH %	1%	38%	61%	52%	47%	1%	46%	21%	32%	47%	1%	52%						
	APP/DEPART	1,553	/	1,123	951	/	922	114	/	1,461	926	/	38	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	16	321	514	296	264	8	19	13	25	253	7	284	2,020					
	APPROACH %	2%	38%	60%	52%	46%	1%	33%	23%	44%	47%	1%	52%						
	PEAK HR FACTOR		0.937			0.899			0.891			0.840		0.953					
	APP/DEPART	851	/	624	568	/	542	57	/	823	544	/	31	0					
MD	11:00 AM	2	73	89	74	113	0	2	2	4	84	1	58	502	0	0	0	0	0
	11:15 AM	9	96	99	73	81	1	2	3	3	86	0	67	520	0	0	0	0	0
	11:30 AM	4	97	98	80	89	3	9	2	4	107	1	78	572	0	0	0	0	0
	11:45 AM	5	95	98	80	83	3	4	1	1	84	1	85	540	0	0	0	0	0
	12:00 PM	8	95	99	79	107	5	4	1	3	103	6	144	654	0	0	0	0	0
	12:15 PM	2	100	100	89	106	3	5	2	3	92	0	78	580	0	0	0	0	0
	12:30 PM	5	112	98	89	88	2	4	4	8	67	3	79	559	0	0	0	0	0
	12:45 PM	7	111	93	89	97	4	3	2	4	80	2	98	590	0	0	0	0	0
	VOLUMES	42	779	774	653	764	21	33	17	30	703	14	687	4,517	0	0	0	0	0
	APPROACH %	3%	49%	49%	45%	53%	1%	41%	21%	38%	50%	1%	49%						
	APP/DEPART	1,595	/	1,499	1,438	/	1,497	80	/	1,444	1,404	/	77	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	22	418	390	346	398	14	16	9	18	342	11	399	2,383					
	APPROACH %	3%	50%	47%	46%	53%	2%	37%	21%	42%	45%	1%	53%						
	PEAK HR FACTOR		0.965			0.957			0.672			0.743		0.911					
	APP/DEPART	830	/	833	758	/	758	43	/	745	752	/	47	0					
PM	04:00 PM	7	142	101	78	153	5	3	1	2	86	2	97	677	0	0	0	0	0
	4:15 PM	10	119	81	97	134	4	6	0	6	102	1	113	673	0	0	0	0	0
	4:30 PM	5	138	91	85	133	10	2	1	0	106	3	116	690	0	0	0	0	0
	4:45 PM	7	157	98	88	130	6	5	3	7	109	3	119	732	0	0	0	0	0
	5:00 PM	6	169	80	96	178	9	0	2	4	153	1	149	847	0	0	0	0	0
	5:15 PM	2	166	81	87	153	13	6	4	6	108	5	119	750	0	0	0	0	0
	5:30 PM	8	127	90	69	90	8	6	2	2	118	5	97	622	0	0	0	0	0
	5:45 PM	5	101	103	44	89	8	5	1	4	103	4	98	565	0	0	0	0	0
	VOLUMES	50	1,119	725	644	1,060	63	33	14	31	885	24	908	5,556	0	0	0	0	0
	APPROACH %	3%	59%	38%	36%	60%	4%	42%	18%	40%	49%	1%	50%						
	APP/DEPART	1,894	/	2,060	1,767	/	1,976	78	/	1,383	1,817	/	137	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	20	630	350	356	594	38	13	10	17	476	12	503	3,019					
	APPROACH %	2%	63%	35%	36%	60%	4%	33%	25%	43%	48%	1%	51%						
	PEAK HR FACTOR		0.954			0.873			0.625			0.818		0.891					
	APP/DEPART	1,000	/	1,146	988	/	1,087	40	/	716	991	/	70	0					

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1
	7:15 AM	0	0	0	0	8	0	0	0	0	0	0	0	8
	7:30 AM	0	0	0	0	0	1	0	3	0	1	0	1	6
	7:45 AM	0	0	0	0	0	1	0	1	0	0	1	1	4
	8:00 AM	0	0	0	0	1	3	0	0	1	1	0	0	6
	8:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	2
	8:30 AM	0	1	0	1	1	0	0	0	0	0	0	0	3
	8:45 AM	0	0	1	0	1	1	0	3	0	0	0	0	6
	TOTAL	0	1	1	1	11	8	0	7	1	3	1	2	36
MD	11:00 AM	0	0	0	0	3	2	0	1	0	0	0	1	7
	11:15 AM	0	0	0	0	2	1	0	0	0	0	1	0	4
	11:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	11:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	12:00 PM	0	1	0	1	1	1	0	0	0	0	0	1	5
	12:15 PM	0	0	1	1	2	5	0	0	0	0	0	0	9
	12:30 PM	0	0	0	0	3	0	0	2	1	0	1	3	10
	12:45 PM	0	0	0	0	1	0	0	0	0	1	1	0	3
	TOTAL	0	1	2	2	12	9	0	3	1	1	4	5	40
PM	4:00 PM	0	0	0	0	0	1	0	0	4	0	5	0	10
	4:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	4
	4:30 PM	0	0	1	0	1	2	0	0	3	0	1	1	9
	4:45 PM	0	0	0	0	2	1	0	0	1	0	0	0	4
	5:00 PM	0	0	0	0	2	0	0	0	1	0	0	0	3
	5:15 PM	0	0	0	0	1	0	0	0	1	0	0	1	3
	5:30 PM	0	0	1	0	0	0	0	1	1	0	0	1	4
	5:45 PM	0	0	0	0	1	0	0	0	1	0	2	1	5
	TOTAL	0	0	2	0	7	6	0	3	12	0	8	4	42



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	San Luis Obispo	PROJECT #:	SC0843
Wed, Feb 3, 16	NORTH & SOUTH:	Higuera	LOCATION #:	54
	EAST & WEST:	Tank Farm	CONTROL:	SIGNAL

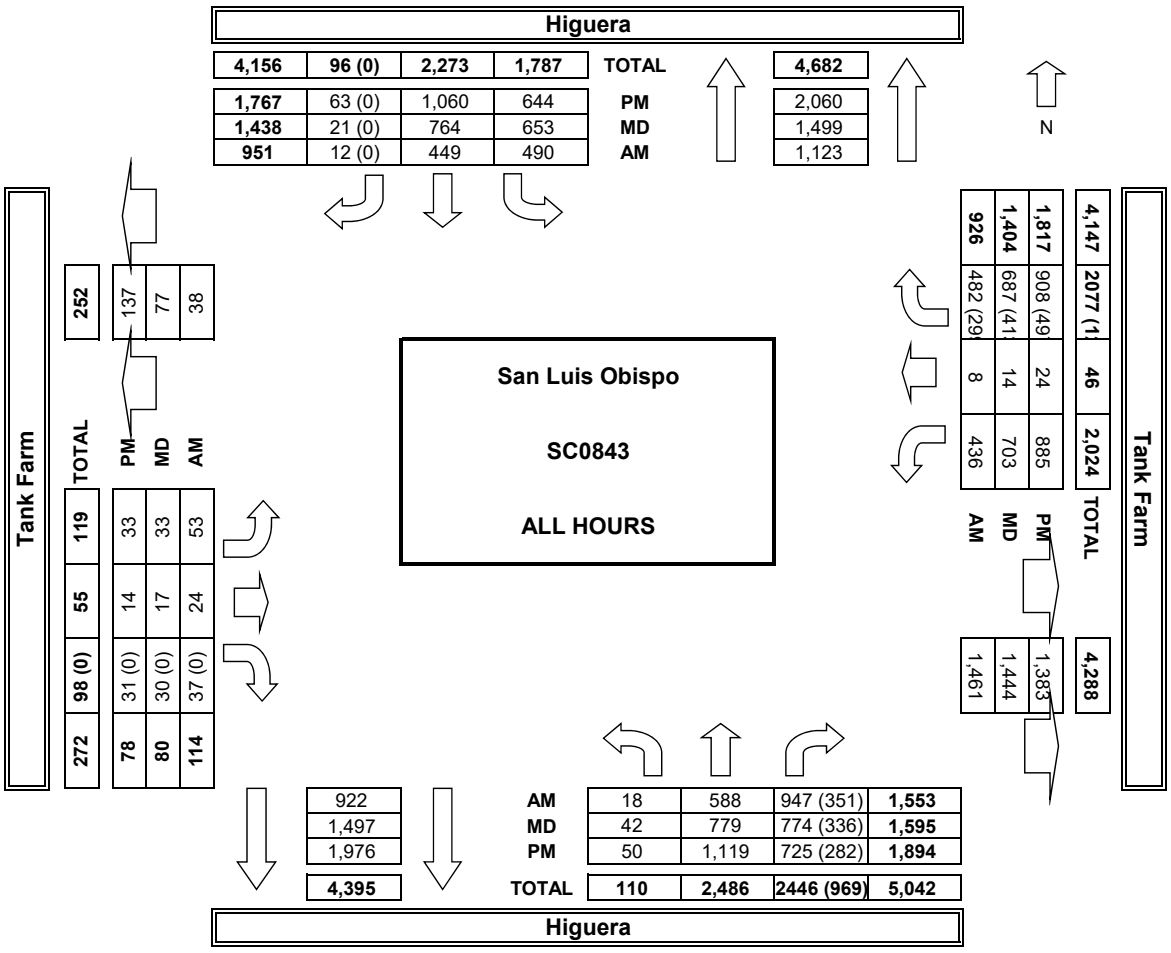
NOTES:

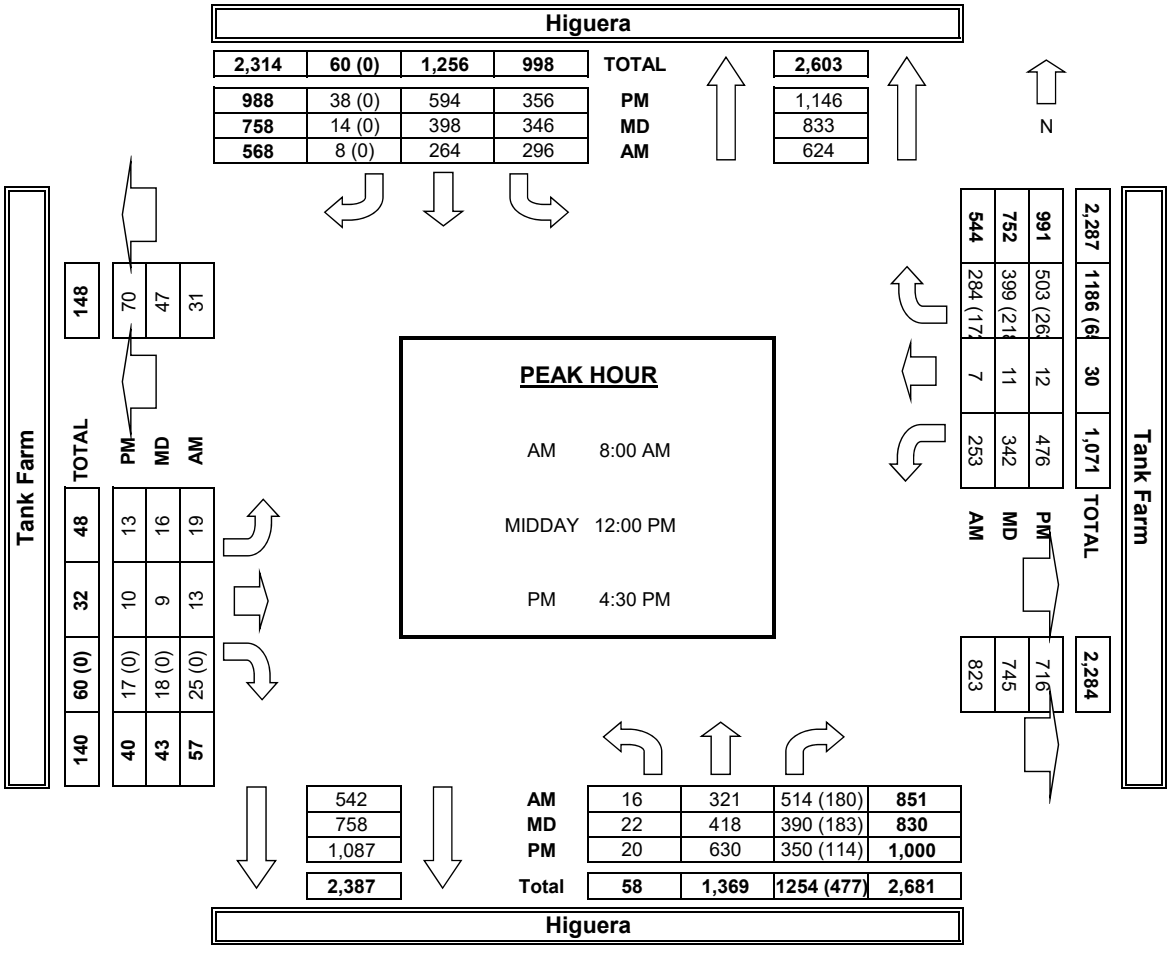
AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Higuera			SOUTHBOUND Higuera			EASTBOUND Tank Farm			WESTBOUND Tank Farm			
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 0.5	ET 0.5	ER 1	WL 1.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	3	0	1	0	0	1	0	0	5
	7:15 AM	0	1	0	1	1	0	0	0	1	0	0	0	4
	7:30 AM	0	1	0	2	1	0	1	0	0	0	0	0	5
	7:45 AM	0	1	1	0	1	0	0	1	0	1	0	0	5
	8:00 AM	0	1	0	2	1	0	0	0	0	0	0	0	4
	8:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	2
	8:30 AM	0	1	0	0	1	0	0	0	1	0	0	0	3
	8:45 AM	0	1	0	0	2	0	0	0	0	3	0	0	6
	VOLUMES	0	6	1	5	11	0	2	2	2	5	0	0	34
	APPROACH %	0%	86%	14%	31%	69%	0%	33%	33%	33%	100%	0%	0%	
	APP/DEPART	7	/	8	16	/	18	6	/	8	5	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	3	1	3	6	0	2	1	1	2	0	0	19
	APPROACH %	0%	75%	25%	33%	67%	0%	50%	25%	25%	100%	0%	0%	
	PEAK HR FACTOR		0.500			0.750			1.000			0.500		0.950
	APP/DEPART	4	/	5	9	/	9	4	/	5	2	/	0	0
MD	11:00 AM	0	2	1	0	1	1	0	0	0	0	0	0	5
	11:15 AM	0	1	0	0	1	0	0	0	0	3	0	0	5
	11:30 AM	0	0	0	0	2	0	0	0	0	1	0	0	3
	11:45 AM	0	4	2	1	5	0	0	0	0	1	0	0	13
	12:00 PM	0	4	1	0	2	0	0	1	0	2	0	1	11
	12:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	12:30 PM	0	1	0	0	3	0	0	0	0	1	0	0	5
	12:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	2
	VOLUMES	0	13	4	2	15	1	0	1	0	8	0	1	45
	APPROACH %	0%	76%	24%	11%	83%	6%	0%	100%	0%	89%	0%	11%	
	APP/DEPART	17	/	14	18	/	23	1	/	7	9	/	1	0
	BEGIN PEAK HR		11:15 AM											
	VOLUMES	0	9	3	1	10	0	0	1	0	7	0	1	32
	APPROACH %	0%	75%	25%	9%	91%	0%	0%	100%	0%	88%	0%	13%	
	PEAK HR FACTOR		0.500			0.458			0.250			0.667		0.615
	APP/DEPART	12	/	10	11	/	17	1	/	5	8	/	0	0
PM	04:00 PM	0	3	0	0	3	0	0	0	0	0	0	0	6
	4:15 PM	0	2	0	0	1	0	0	0	0	1	0	0	4
	4:30 PM	0	3	0	0	3	0	0	0	0	0	0	0	6
	4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	1	2
	5:15 PM	0	1	0	1	3	0	1	0	0	1	1	0	8
	5:30 PM	0	3	0	0	0	0	0	1	0	1	0	2	7
	5:45 PM	0	2	0	0	0	0	0	0	0	2	0	0	4
	VOLUMES	0	17	0	1	10	0	1	1	0	5	1	3	39
	APPROACH %	0%	100%	0%	9%	91%	0%	50%	50%	0%	56%	11%	33%	
	APP/DEPART	17	/	21	11	/	15	2	/	2	9	/	1	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	7	0	1	3	0	1	1	0	4	1	3	21
	APPROACH %	0%	100%	0%	25%	75%	0%	50%	50%	0%	50%	13%	38%	
	PEAK HR FACTOR		0.583			0.250			0.500			0.667		0.656
	APP/DEPART	7	/	11	4	/	7	2	/	2	8	/	1	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Feb 3, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Higuera
EAST & WEST: Prado

PROJECT #: SC0843
LOCATION #: 52
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Higuera			SOUTHBOUND Higuera			EASTBOUND Prado			WESTBOUND Prado				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	8:00 AM	56	57	8	74	129	10	17	40	20	15	21	10	457	0	0	0	0	0
	8:15 AM	59	56	9	64	147	8	12	20	19	21	20	9	444	0	0	0	0	0
	8:30 AM	57	64	5	45	108	11	15	13	13	13	16	11	371	0	0	0	0	0
	8:45 AM	58	66	6	46	143	8	14	11	26	16	7	5	406	0	0	0	0	0
	9:00 AM	62	67	10	33	94	5	13	12	17	28	8	6	355	0	0	0	0	0
	9:15 AM	53	53	10	31	107	13	9	9	24	10	6	5	330	0	0	0	0	0
	9:30 AM	49	50	3	30	95	11	11	4	15	7	11	16	302	0	0	0	0	0
	9:45 AM	58	79	9	31	98	10	11	8	22	11	7	12	356	0	0	0	0	0
	VOLUMES	452	492	60	354	921	76	102	117	156	121	96	74	3,021	0	0	0	0	0
	APPROACH %	45%	49%	6%	26%	68%	6%	27%	31%	42%	42%	33%	25%						
	APP/DEPART	1,004	/	668	1,351	/	1,198	375	/	531	291	/	624	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	230	243	28	229	527	37	58	84	78	65	64	35	1,678					
	APPROACH %	46%	49%	6%	29%	66%	5%	26%	38%	35%	40%	39%	21%						
	PEAK HR FACTOR		0.963			0.905			0.714			0.820		0.918					
	APP/DEPART	501	/	336	793	/	670	220	/	341	164	/	331	0					
MD	11:15 AM	71	90	8	19	139	7	12	8	14	13	9	15	405	0	0	0	0	0
	11:30 AM	69	125	13	15	152	16	11	7	10	10	14	22	464	0	0	0	0	0
	11:45 AM	91	121	16	22	142	13	9	4	17	11	22	20	488	0	0	0	0	0
	12:00 PM	82	119	9	28	149	9	8	8	13	17	29	38	509	0	0	0	0	0
	12:15 PM	76	136	16	28	159	10	8	7	19	15	24	22	520	0	0	0	0	0
	12:30 PM	77	94	11	20	128	10	15	8	16	13	20	16	428	0	0	0	0	0
	12:45 PM	86	112	11	38	173	11	10	11	17	19	17	18	523	0	0	0	0	0
	1:00 PM	96	113	9	31	139	5	5	7	22	10	15	16	468	0	0	0	0	0
	VOLUMES	648	910	93	201	1,181	81	78	60	128	108	150	167	3,805	0	0	0	0	0
	APPROACH %	39%	55%	6%	14%	81%	6%	29%	23%	48%	25%	35%	39%						
	APP/DEPART	1,651	/	1,155	1,463	/	1,417	266	/	354	425	/	879	0					
	BEGIN PEAK HR		11:30 AM																
	VOLUMES	318	501	54	93	602	48	36	26	59	53	89	102	1,981					
	APPROACH %	36%	57%	6%	13%	81%	6%	30%	21%	49%	22%	36%	42%						
	PEAK HR FACTOR		0.957			0.943			0.890			0.726		0.952					
	APP/DEPART	873	/	639	743	/	714	121	/	173	244	/	455	0					
PM	04:00 PM	115	118	10	22	156	12	12	3	11	21	29	8	517	0	0	0	0	0
	4:15 PM	116	116	14	23	159	3	10	5	19	17	23	23	528	0	0	0	0	0
	4:30 PM	114	131	10	22	161	19	9	7	26	20	48	17	584	0	0	0	0	0
	4:45 PM	119	164	14	24	141	15	19	10	27	18	43	19	613	0	0	0	0	0
	5:00 PM	100	216	14	21	168	12	11	8	19	46	61	44	720	0	0	0	0	0
	5:15 PM	118	177	17	16	156	9	10	10	13	20	31	24	601	0	0	0	0	0
	5:30 PM	131	144	11	16	107	14	12	4	8	10	23	19	499	0	0	0	0	0
	5:45 PM	128	113	11	17	93	4	3	3	14	13	17	9	425	0	0	0	0	0
	VOLUMES	941	1,179	101	161	1,141	88	86	50	137	165	275	163	4,487	0	0	0	0	0
	APPROACH %	42%	53%	5%	12%	82%	6%	32%	18%	50%	27%	46%	27%						
	APP/DEPART	2,221	/	1,428	1,390	/	1,443	273	/	312	603	/	1,304	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	451	688	55	83	626	55	49	35	85	104	183	104	2,518					
	APPROACH %	38%	58%	5%	11%	82%	7%	29%	21%	50%	27%	47%	27%						
	PEAK HR FACTOR		0.905			0.946			0.754			0.647		0.874					
	APP/DEPART	1,194	/	841	764	/	815	169	/	173	391	/	689	0					

Higuera

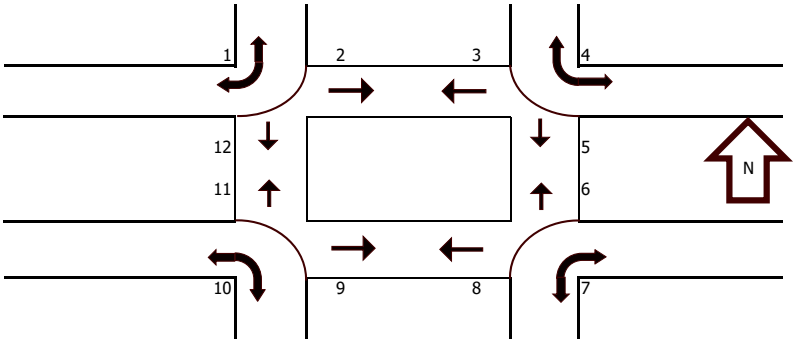
NORTH SIDE

Prado WEST SIDE EAST SIDE **Prado**

SOUTH SIDE

Higuera

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	8:00 AM	0	0	0	0	0	1	0	3	4	4	1	0	13
	8:15 AM	0	0	0	1	0	4	2	0	4	1	1	0	13
	8:30 AM	0	0	0	0	0	1	0	0	1	1	1	0	4
	8:45 AM	0	0	0	2	1	1	0	1	0	0	0	0	5
	9:00 AM	0	1	0	1	1	0	0	0	0	0	1	0	4
	9:15 AM	0	0	0	5	0	1	0	2	0	0	1	1	10
	9:30 AM	0	1	0	0	0	1	0	0	0	0	0	1	3
	9:45 AM	0	0	0	0	1	0	0	2	0	0	0	1	4
	TOTAL	0	2	0	9	3	9	2	8	9	6	5	3	56
MD	11:15 AM	0	1	1	1	1	0	0	1	0	2	0	0	7
	11:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	11:45 AM	0	0	1	0	0	1	0	0	1	0	0	1	4
	12:00 PM	0	1	0	1	1	0	0	0	2	0	3	0	8
	12:15 PM	0	0	0	1	0	1	0	3	0	0	0	3	8
	12:30 PM	0	0	0	1	0	0	0	0	2	1	1	0	5
	12:45 PM	0	1	0	0	1	0	0	2	1	5	1	0	11
	1:00 PM	0	0	2	1	3	0	0	0	2	0	2	0	10
	TOTAL	0	3	5	5	6	2	0	6	8	8	7	4	54
PM	4:00 PM	0	0	1	0	0	2	0	0	0	1	2	1	7
	4:15 PM	0	0	0	1	1	1	0	0	0	0	0	2	5
	4:30 PM	0	0	1	0	1	0	0	1	0	1	1	0	5
	4:45 PM	0	0	0	1	0	0	0	0	0	1	1	1	4
	5:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	2
	5:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
	5:30 PM	0	0	0	0	1	0	0	0	1	1	1	0	4
	5:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	2
	TOTAL	0	0	2	3	5	3	0	2	1	6	5	4	31



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	San Luis Obispo	PROJECT #:	SC0843
Wed, Feb 3, 16	NORTH & SOUTH:	Higuera	LOCATION #:	52
	EAST & WEST:	Prado	CONTROL:	SIGNAL

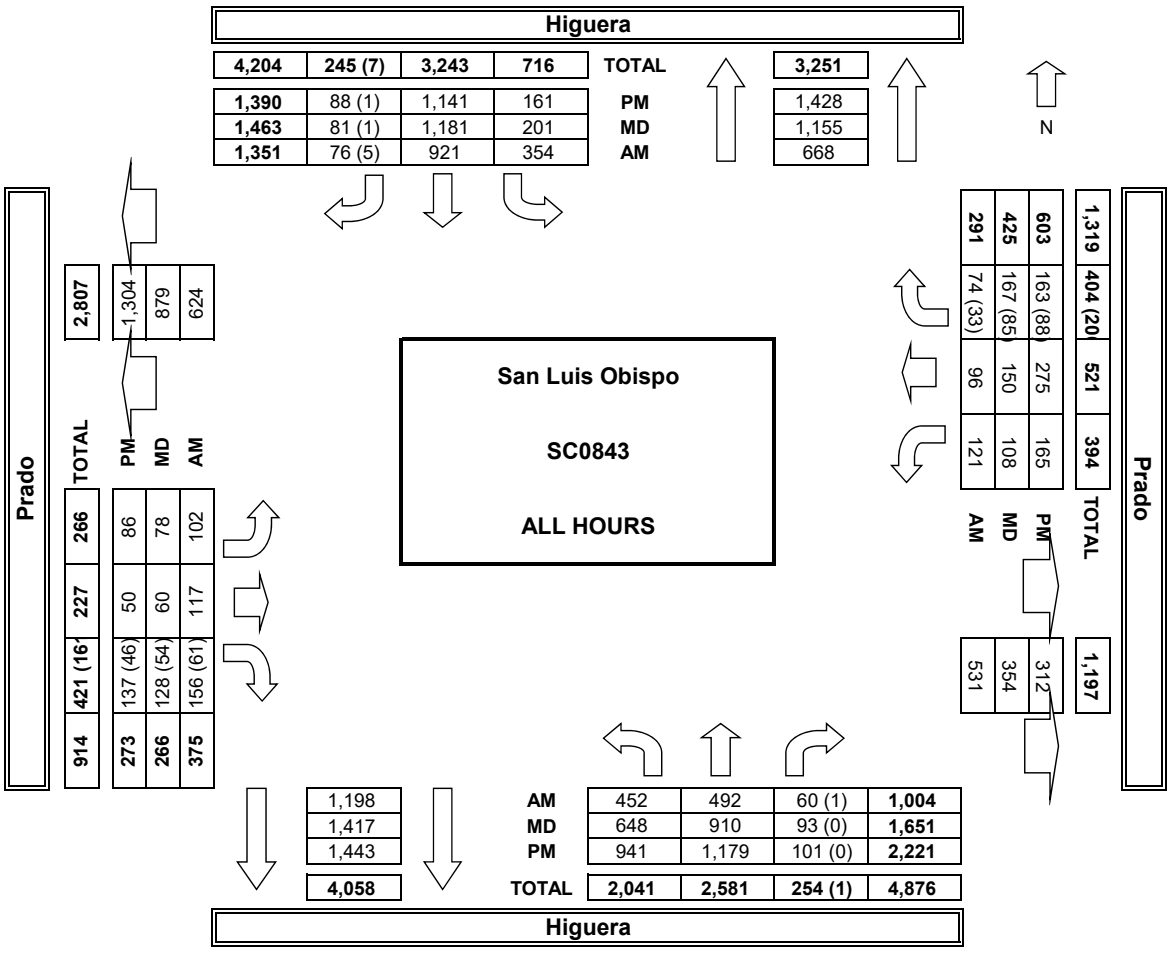
NOTES:

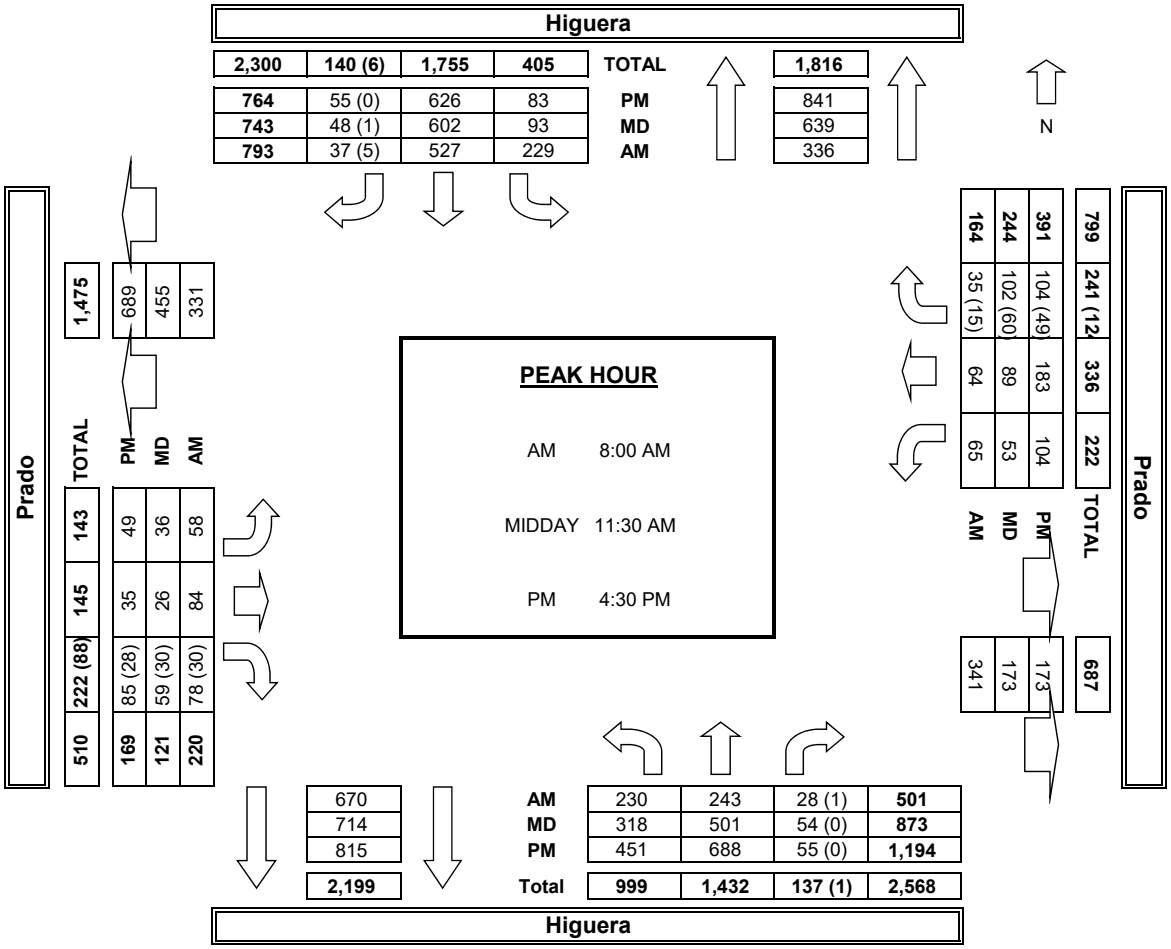
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Higuera)			SOUTHBOUND (Higuera)			EASTBOUND (Prado)			WESTBOUND (Prado)			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	8:00 AM	0	1	0	0	0	0	0	0	1	0	0	0	2
	8:15 AM	0	0	0	1	1	0	0	0	0	0	0	0	2
	8:30 AM	0	3	0	0	2	0	0	0	1	0	0	0	6
	8:45 AM	0	0	0	0	3	0	2	0	1	0	1	0	7
	9:00 AM	0	2	1	2	1	0	0	0	0	0	0	0	6
	9:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	9:30 AM	0	3	3	0	3	0	0	0	0	0	0	0	9
	9:45 AM	0	2	0	0	1	0	0	0	0	0	5	0	8
	VOLUMES	0	12	4	3	12	0	2	0	3	0	6	0	42
	APPROACH %	0%	75%	25%	20%	80%	0%	40%	0%	60%	0%	100%	0%	
	APP/DEPART	16	/	14	15	/	15	5	/	7	6	/	6	0
	BEGIN PEAK HR		9:00 AM											
	VOLUMES	0	8	4	2	6	0	0	0	0	0	5	0	25
	APPROACH %	0%	67%	33%	25%	75%	0%	0%	0%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.667			0.000			0.250		0.694
	APP/DEPART	12	/	8	8	/	6	0	/	6	5	/	5	0
MD	11:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	11:30 AM	0	2	0	0	1	0	0	0	2	0	0	0	5
	11:45 AM	1	4	1	0	6	1	0	0	1	0	0	0	14
	12:00 PM	0	8	0	0	3	0	0	0	0	0	1	1	13
	12:15 PM	0	2	0	0	0	1	0	0	0	0	0	0	3
	12:30 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	12:45 PM	0	0	0	1	1	0	0	0	1	0	0	0	3
	1:00 PM	0	3	0	0	4	0	0	1	1	0	0	1	10
	VOLUMES	1	21	1	1	18	2	0	1	5	0	1	2	53
	APPROACH %	4%	91%	4%	5%	86%	10%	0%	17%	83%	0%	33%	67%	
	APP/DEPART	23	/	23	21	/	23	6	/	3	3	/	4	0
	BEGIN PEAK HR		11:30 AM											
	VOLUMES	1	16	1	0	10	2	0	0	3	0	1	1	35
	APPROACH %	6%	89%	6%	0%	83%	17%	0%	0%	100%	0%	50%	50%	
	PEAK HR FACTOR		0.563			0.429			0.375			0.250		0.625
	APP/DEPART	18	/	17	12	/	13	3	/	1	2	/	4	0
PM	04:00 PM	1	2	0	0	1	0	0	0	0	0	0	0	4
	4:15 PM	1	3	0	0	0	0	0	0	1	0	0	0	5
	4:30 PM	1	3	0	1	3	0	0	0	0	0	0	1	9
	4:45 PM	2	3	0	0	0	0	0	0	0	0	0	0	5
	5:00 PM	0	4	0	0	1	0	0	0	1	0	0	1	7
	5:15 PM	0	2	0	0	3	0	0	0	0	0	0	0	5
	5:30 PM	0	3	0	0	1	0	0	0	0	0	0	0	4
	5:45 PM	0	4	0	0	1	0	0	0	0	0	0	1	6
	VOLUMES	5	24	0	1	10	0	0	0	2	0	0	3	45
	APPROACH %	17%	83%	0%	9%	91%	0%	0%	0%	100%	0%	0%	100%	
	APP/DEPART	29	/	27	11	/	12	2	/	1	3	/	5	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	3	12	0	1	7	0	0	0	1	0	0	2	26
	APPROACH %	20%	80%	0%	13%	88%	0%	0%	0%	100%	0%	0%	100%	
	PEAK HR FACTOR		0.750			0.500			0.250			0.500		0.722
	APP/DEPART	15	/	14	8	/	8	1	/	1	2	/	3	0

AimTD LLC

TURNING MOVEMENT COUNTS





Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	5	220	0	4	0	10	0	0	240	4	0	0	0	0
Future Vol, veh/h	0	0	5	220	0	4	0	10	0	0	240	4	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	5	239	0	4	0	11	0	0	261	4	0	0	0	0
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.5	7.5	9.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	29%
Vol Thru, %	98%	2%	0%
Vol Right, %	2%	98%	71%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	244	225	14
LT Vol	0	0	4
Through Vol	240	5	0
RT Vol	4	220	10
Lane Flow Rate	265	245	15
Geometry Grp	1	1	1
Degree of Util (X)	0.322	0.271	0.019
Departure Headway (Hd)	4.487	3.996	4.447
Convergence, Y/N	Yes	Yes	Yes
Cap	806	905	808
Service Time	2.487	1.997	2.457
HCM Lane V/C Ratio	0.329	0.271	0.019
HCM Control Delay	9.6	8.5	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.4	1.1	0.1

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	0	15	130	0	9	0	15	0	0	480	12	0	0	0	0
Future Vol, veh/h	0	0	15	130	0	9	0	15	0	0	480	12	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2	10	10	2
Mvmt Flow	0	0	16	141	0	10	0	16	0	0	522	13	0	0	0	0
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.9	8.3	15.1
HCM LOS	A	A	C

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	38%
Vol Thru, %	98%	10%	0%
Vol Right, %	2%	90%	62%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	492	145	24
LT Vol	0	0	9
Through Vol	480	15	0
RT Vol	12	130	15
Lane Flow Rate	535	158	26
Geometry Grp	1	1	1
Degree of Util (X)	0.647	0.204	0.037
Departure Headway (Hd)	4.354	4.668	5.081
Convergence, Y/N	Yes	Yes	Yes
Cap	829	768	702
Service Time	2.385	2.707	3.132
HCM Lane V/C Ratio	0.645	0.206	0.037
HCM Control Delay	15.1	8.9	8.3
HCM Lane LOS	C	A	A
HCM 95th-tile Q	4.8	0.8	0.1

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Mar 16, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Oceanaire
EAST & WEST: Madonna

PROJECT #: SC0843
LOCATION #: 87
CONTROL: SIGNAL

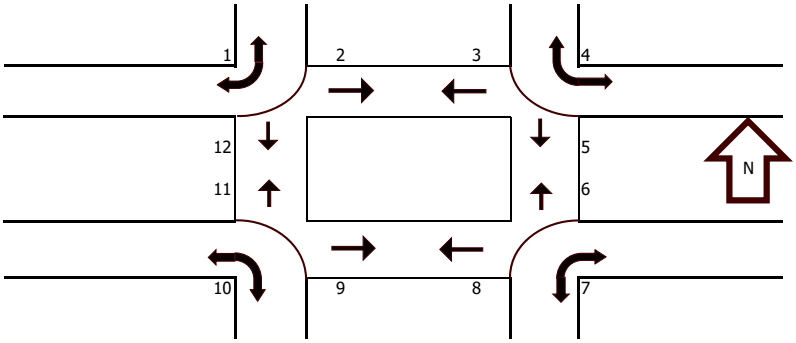
NOTES:

AM / PM / MD / OTHER / OTHER — N / W / E / S

Add U-Turns to Left Turns

		NORTHBOUND Oceanaire			SOUTHBOUND Oceanaire			EASTBOUND Madonna			WESTBOUND Madonna				U-TURNS				
	LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 1.5	ER 0.5	WL 1	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	2	0	13	17	0	4	1	94	0	1	48	4	184	0	0	0	0	0
	7:15 AM	2	0	8	37	1	4	0	115	0	2	49	6	224	0	0	0	0	0
	7:30 AM	3	0	15	64	0	6	1	184	1	4	75	24	377	0	0	0	0	0
	7:45 AM	2	0	18	59	0	3	1	213	1	9	147	19	472	0	0	0	0	0
	8:00 AM	4	1	20	56	1	6	6	190	0	5	133	46	468	0	0	0	0	0
	8:15 AM	4	7	13	91	2	24	7	196	1	6	83	49	483	0	0	0	0	0
	8:30 AM	2	1	12	78	4	13	5	162	0	5	70	18	370	0	0	0	0	0
	8:45 AM	2	2	17	48	0	3	3	159	0	5	100	18	357	0	0	1	0	1
	VOLUMES	21	11	116	450	8	63	24	1,313	3	37	705	184	2,935	0	0	1	0	1
	APPROACH %	14%	7%	78%	86%	2%	12%	2%	98%	0%	4%	76%	20%						
	APP/DEPART	148	/	218	521	/	48	1,340	/	1,879	926	/	790	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	13	8	66	270	3	39	15	783	3	24	438	138	1,800					
	APPROACH %	15%	9%	76%	87%	1%	13%	2%	98%	0%	4%	73%	23%						
	PEAK HR FACTOR		0.870			0.667			0.931			0.815		0.932					
	APP/DEPART	87	/	161	312	/	30	801	/	1,119	600	/	490	0					
MD	11:00 AM	4	1	4	23	2	3	1	180	0	4	160	25	407	0	0	0	0	0
	11:15 AM	1	1	17	24	1	4	2	175	0	8	182	25	440	0	0	0	1	1
	11:30 AM	4	1	10	23	1	3	1	190	0	10	203	21	467	0	0	0	0	0
	11:45 AM	2	0	13	25	1	4	2	195	3	10	179	33	467	0	0	0	0	0
	12:00 PM	7	1	8	19	0	2	0	197	1	10	231	33	509	0	0	0	0	0
	12:15 PM	6	1	6	29	0	6	4	208	2	4	203	45	514	0	0	0	0	0
	12:30 PM	1	0	9	31	1	9	1	187	0	10	177	34	460	0	0	0	1	1
	12:45 PM	2	0	16	33	0	8	7	211	1	13	206	24	521	0	0	0	0	0
	VOLUMES	27	5	83	207	6	39	18	1,543	7	69	1,541	240	3,785	0	0	0	2	2
	APPROACH %	23%	4%	72%	82%	2%	15%	1%	98%	0%	4%	83%	13%						
	APP/DEPART	115	/	263	252	/	80	1,568	/	1,835	1,850	/	1,607	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	16	2	39	112	1	25	12	803	4	37	817	136	2,004					
	APPROACH %	28%	4%	68%	81%	1%	18%	1%	98%	0%	4%	83%	14%						
	PEAK HR FACTOR		0.792			0.841			0.935			0.903		0.962					
	APP/DEPART	57	/	150	138	/	41	819	/	955	990	/	858	0					
PM	04:00 PM	1	0	11	35	1	4	3	213	0	10	214	46	538	0	0	0	0	0
	4:15 PM	5	1	11	34	1	6	2	197	2	16	222	39	536	0	0	0	0	0
	4:30 PM	6	0	9	22	0	6	2	189	1	6	245	51	537	0	0	0	0	0
	4:45 PM	5	1	14	31	0	1	3	188	0	6	231	46	526	0	0	0	0	0
	5:00 PM	0	1	19	37	2	5	4	225	1	18	228	67	607	0	0	0	0	0
	5:15 PM	5	0	10	30	2	6	8	198	1	21	252	62	595	0	0	0	0	0
	5:30 PM	1	4	13	34	0	5	4	169	0	22	245	64	561	0	0	0	1	1
	5:45 PM	2	1	12	26	1	4	6	185	1	18	212	61	529	0	0	0	0	0
	VOLUMES	25	8	99	249	7	37	32	1,564	6	117	1,849	436	4,429	0	0	0	1	1
	APPROACH %	19%	6%	75%	85%	2%	13%	2%	98%	0%	5%	77%	18%						
	APP/DEPART	132	/	476	293	/	129	1,602	/	1,913	2,402	/	1,911	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	8	6	54	127	5	20	22	777	3	79	937	254	2,292					
	APPROACH %	12%	9%	79%	84%	3%	13%	3%	97%	0%	6%	74%	20%						
	PEAK HR FACTOR		0.850			0.864			0.872			0.948		0.944					
	APP/DEPART	68	/	282	152	/	86	802	/	959	1,270	/	965	0					

		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:00 AM	0	0	0	1	0	0	0	0	0	0	1	0	2
	7:15 AM	0	0	0	0	2	1	0	0	0	0	0	0	3
	7:30 AM	0	1	0	3	1	1	0	1	0	0	0	0	7
	7:45 AM	0	1	1	2	0	1	0	0	0	0	0	0	5
	8:00 AM	1	0	1	0	0	0	0	0	0	0	1	0	3
	8:15 AM	0	0	1	0	2	0	0	0	0	0	0	1	4
	8:30 AM	0	0	4	0	0	0	0	0	0	0	0	1	5
	8:45 AM	0	1	2	2	1	0	0	1	0	0	0	1	8
	TOTAL	1	3	9	8	6	3	0	2	0	0	2	3	37
MD	11:00 AM	0	0	0	0	0	0	1	1	1	0	0	0	3
	11:15 AM	0	0	0	2	0	1	0	0	0	0	0	0	3
	11:30 AM	0	0	1	1	0	0	0	1	0	0	0	0	3
	11:45 AM	0	0	0	1	0	1	0	2	1	0	0	2	7
	12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	12:15 PM	0	0	3	1	2	1	1	0	0	0	0	0	8
	12:30 PM	0	1	0	3	0	0	0	0	0	0	0	0	4
	12:45 PM	0	0	1	1	3	0	0	1	0	0	0	0	6
	TOTAL	0	2	5	9	5	3	2	5	2	0	0	2	35
PM	4:00 PM	0	0	3	5	0	0	0	0	0	0	0	2	10
	4:15 PM	0	0	0	2	0	1	0	0	0	0	0	0	3
	4:30 PM	0	0	3	1	0	2	0	0	1	0	0	0	7
	4:45 PM	0	2	1	0	1	1	0	0	1	0	0	4	10
	5:00 PM	0	0	1	0	1	2	0	0	1	0	0	0	5
	5:15 PM	0	0	0	3	0	1	0	1	0	0	0	0	5
	5:30 PM	0	0	0	0	2	2	2	0	2	0	2	0	10
	5:45 PM	0	0	0	4	2	2	1	0	0	0	0	0	9
	TOTAL	0	2	8	15	6	11	3	1	5	0	2	6	59



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Mar 16, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Oceanaire
EAST & WEST: Madonna

PROJECT #: SC0843
LOCATION #: 87
CONTROL: SIGNAL

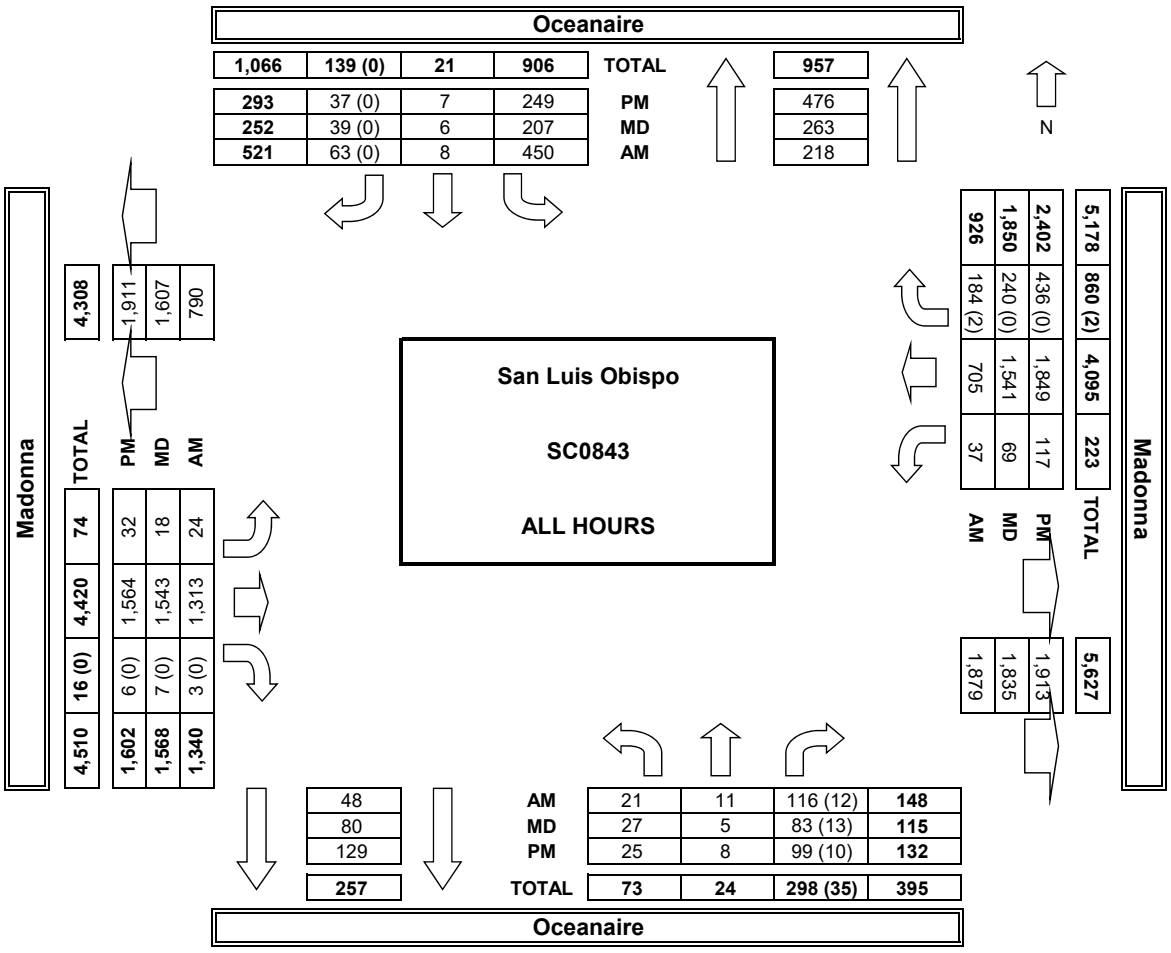
NOTES:

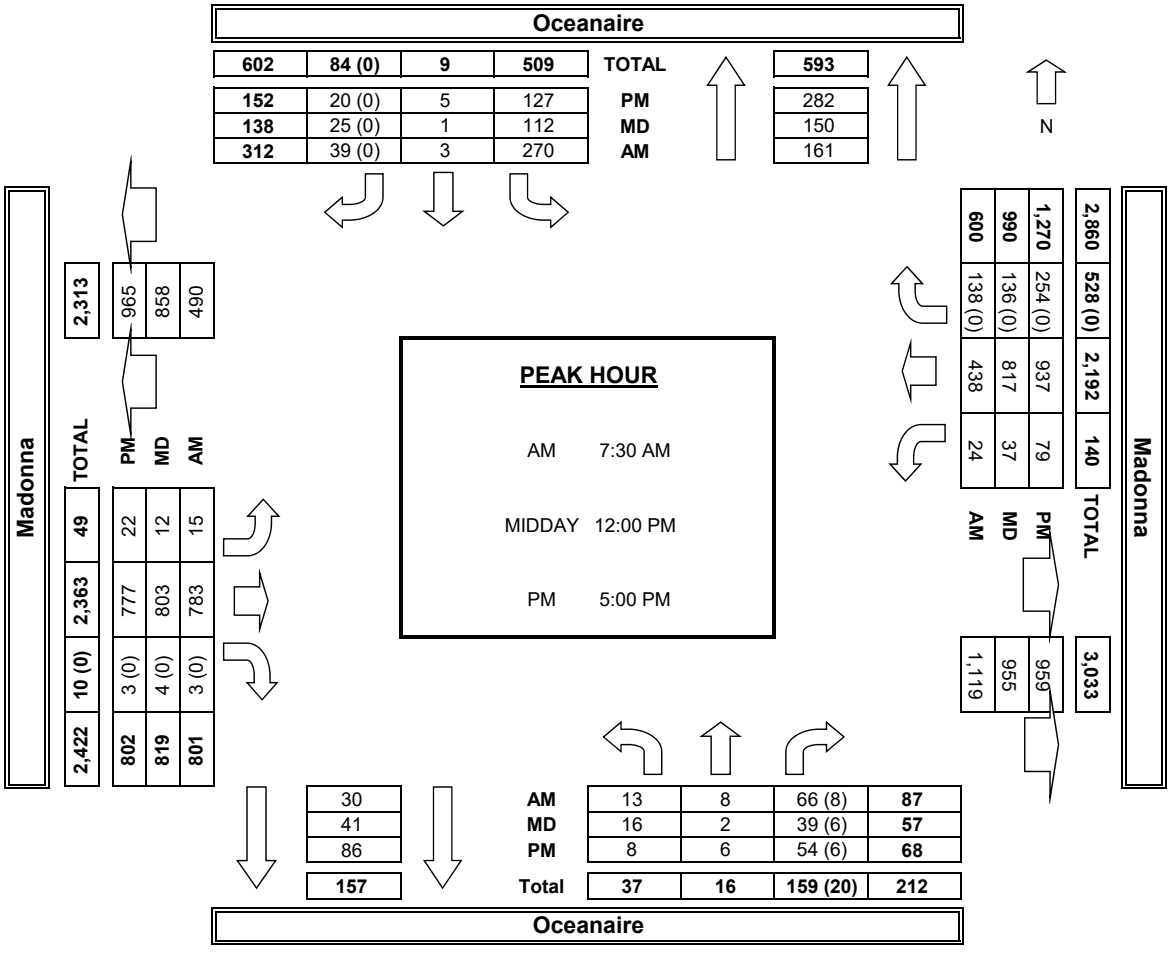
AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Oceanaire			SOUTHBOUND Oceanaire			EASTBOUND Madonna			WESTBOUND Madonna			
	LANES:	NL 0.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 1.5	ER 0.5	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	7:15 AM	0	0	3	0	0	0	0	1	0	0	0	0	4
	7:30 AM	0	0	1	2	0	0	0	1	0	0	0	1	5
	7:45 AM	0	0	3	0	0	0	0	0	0	0	0	0	3
	8:00 AM	0	3	2	1	0	0	0	0	0	0	1	0	7
	8:15 AM	0	2	2	1	0	0	0	2	1	0	1	0	9
	8:30 AM	0	0	2	1	0	0	0	0	1	0	1	0	5
	8:45 AM	0	0	1	3	0	0	0	0	1	0	1	0	6
	VOLUMES	0	5	14	8	0	0	0	6	3	0	4	1	41
	APPROACH %	0%	26%	74%	100%	0%	0%	0%	67%	33%	0%	80%	20%	
	APP/DEPART	19	/	6	8	/	3	9	/	28	5	/	4	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	5	7	6	0	0	0	2	3	0	4	0	27
	APPROACH %	0%	42%	58%	100%	0%	0%	0%	40%	60%	0%	100%	0%	
	PEAK HR FACTOR		0.600			0.500			0.417			1.000		0.750
	APP/DEPART	12	/	5	6	/	3	5	/	15	4	/	4	0
MD	11:00 AM	0	0	1	4	0	0	1	0	0	0	0	1	7
	11:15 AM	0	0	2	1	0	0	0	1	0	0	1	2	7
	11:30 AM	0	0	0	1	0	1	0	1	0	0	0	1	4
	11:45 AM	0	0	1	1	0	0	0	0	0	1	1	3	7
	12:00 PM	0	0	1	4	0	0	0	0	1	0	1	2	9
	12:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	12:30 PM	0	0	2	3	2	0	0	1	0	0	0	1	9
	12:45 PM	0	0	2	1	0	0	0	0	0	0	1	0	4
	VOLUMES	0	0	9	15	2	1	1	4	1	1	6	10	50
	APPROACH %	0%	0%	100%	83%	11%	6%	17%	67%	17%	6%	35%	59%	
	APP/DEPART	9	/	11	18	/	4	6	/	28	17	/	7	0
	BEGIN PEAK HR		11:45 AM											
	VOLUMES	0	0	4	8	2	0	0	2	1	1	4	6	28
	APPROACH %	0%	0%	100%	80%	20%	0%	0%	67%	33%	9%	36%	55%	
	PEAK HR FACTOR		0.500			0.500			0.750			0.550		0.778
	APP/DEPART	4	/	6	10	/	4	3	/	14	11	/	4	0
PM	04:00 PM	0	0	0	0	0	0	0	2	0	0	0	1	3
	4:15 PM	0	0	1	2	0	0	0	0	0	2	0	0	5
	4:30 PM	1	0	2	0	0	0	0	0	0	0	0	0	3
	4:45 PM	1	0	2	3	0	0	0	0	0	2	4	1	13
	5:00 PM	0	1	2	1	0	0	0	0	0	0	0	5	9
	5:15 PM	0	0	1	0	0	0	0	0	0	0	3	4	8
	5:30 PM	0	0	0	1	0	0	0	1	0	0	7	0	9
	5:45 PM	0	0	0	1	1	0	0	1	0	0	5	2	10
	VOLUMES	2	1	8	8	1	0	0	4	0	4	19	13	60
	APPROACH %	18%	9%	73%	89%	11%	0%	0%	100%	0%	11%	53%	36%	
	APP/DEPART	11	/	14	9	/	5	4	/	20	36	/	21	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	1	1	5	5	0	0	0	1	0	2	14	10	39
	APPROACH %	14%	14%	71%	100%	0%	0%	0%	100%	0%	8%	54%	38%	
	PEAK HR FACTOR		0.583			0.417			0.250			0.929		0.750
	APP/DEPART	7	/	11	5	/	2	1	/	11	26	/	15	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, Apr 5, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Dalidio
EAST & WEST: Madonna

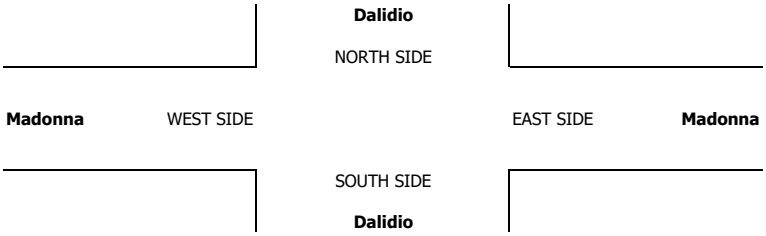
PROJECT #: SC0843
LOCATION #: 86
CONTROL: SIGNAL

NOTES:

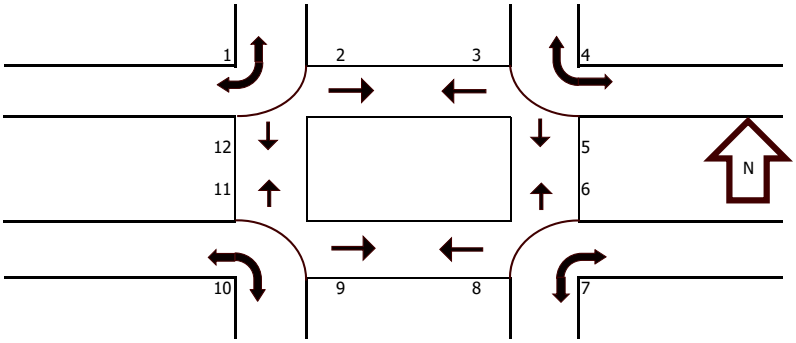
AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Dalidio			SOUTHBOUND Dalidio			EASTBOUND Madonna			WESTBOUND Madonna				U-TURNS				
	LANES:	NL 0.5	NT 0.5	NR 1	SL 0.5	ST 0.5	SR 1	EL 1	ET 1.5	ER 0.5	WL 1	WT 3	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	8	0	3	1	0	0	2	107	8	11	58	0	198	1	0	0	0	1
	7:15 AM	2	0	5	1	0	2	2	165	18	24	60	3	282	0	0	0	0	0
	7:30 AM	3	0	4	3	0	0	0	264	3	12	82	4	375	0	0	0	1	1
	7:45 AM	3	0	13	1	0	2	3	292	14	11	194	7	540	0	0	0	0	0
	8:00 AM	6	0	9	4	0	0	4	260	11	13	174	6	487	0	0	0	0	0
	8:15 AM	1	0	6	4	1	2	3	226	11	8	140	9	411	0	0	0	0	0
	8:30 AM	7	0	17	5	0	4	6	215	21	9	105	10	399	0	0	0	0	0
	8:45 AM	15	1	11	8	1	4	7	236	20	14	96	5	418	0	0	0	0	0
	VOLUMES	45	1	68	27	2	14	27	1,765	106	102	909	44	3,110	1	0	0	1	2
	APPROACH %	39%	1%	60%	63%	5%	33%	1%	93%	6%	10%	86%	4%						
	APP/DEPART	114	/	72	43	/	210	1,898	/	1,861	1,055	/	967	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	17	0	45	14	1	8	16	993	57	41	613	32	1,837					
	APPROACH %	27%	0%	73%	61%	4%	35%	2%	93%	5%	6%	89%	5%						
	PEAK HR FACTOR		0.646			0.639			0.862			0.809		0.850					
	APP/DEPART	62	/	48	23	/	99	1,066	/	1,052	686	/	638	0					
MD	11:00 AM	32	0	18	5	2	3	5	158	32	32	187	6	480	0	0	1	1	2
	11:15 AM	19	1	23	5	1	7	3	175	25	26	189	9	483	0	0	1	0	1
	11:30 AM	28	3	18	8	2	5	7	205	26	21	184	7	514	0	0	0	1	1
	11:45 AM	25	0	24	8	0	3	6	250	31	14	208	9	578	0	0	2	0	2
	12:00 PM	31	2	22	6	1	5	11	191	34	29	222	11	565	0	1	1	0	2
	12:15 PM	26	1	28	6	0	6	5	171	26	37	222	2	530	0	0	0	2	2
	12:30 PM	25	2	28	8	3	7	3	184	31	27	193	6	517	0	0	1	2	3
	12:45 PM	27	1	20	11	1	2	5	226	30	19	186	7	535	0	0	0	0	0
	VOLUMES	213	10	181	57	10	38	45	1,560	235	205	1,591	57	4,202	0	1	6	6	13
	APPROACH %	53%	2%	45%	54%	10%	36%	2%	85%	13%	11%	86%	3%						
	APP/DEPART	404	/	107	105	/	444	1,840	/	1,803	1,853	/	1,848	0					
	BEGIN PEAK HR		11:45 AM																
	VOLUMES	107	5	102	28	4	21	25	796	122	107	845	28	2,190					
	APPROACH %	50%	2%	48%	53%	8%	40%	3%	84%	13%	11%	86%	3%						
	PEAK HR FACTOR		0.973			0.736			0.821			0.935		0.947					
	APP/DEPART	214	/	55	53	/	229	943	/	929	980	/	977	0					
PM	03:30 PM	21	0	12	8	0	5	7	230	11	22	223	11	550	0	0	2	1	3
	3:45 PM	30	2	20	10	0	9	6	241	22	34	278	10	662	2	0	0	3	5
	4:00 PM	25	1	25	8	0	5	9	181	25	27	246	12	564	0	0	0	0	0
	4:15 PM	30	0	27	6	1	4	15	233	28	31	230	7	612	1	0	3	0	4
	4:30 PM	22	2	24	14	1	5	7	171	22	36	247	5	556	1	0	1	0	2
	4:45 PM	27	3	16	9	1	5	1	244	30	19	244	12	611	1	0	0	0	1
	5:00 PM	38	0	21	5	0	9	8	235	27	21	345	8	717	0	0	1	0	1
	5:15 PM	35	0	19	8	0	3	10	214	19	29	331	10	678	0	0	2	0	2
	VOLUMES	228	8	164	68	3	45	63	1,749	184	219	2,144	75	4,950	5	0	9	4	18
	APPROACH %	57%	2%	41%	59%	3%	39%	3%	88%	9%	9%	88%	3%						
	APP/DEPART	400	/	137	116	/	407	1,996	/	1,985	2,438	/	2,421	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	122	5	80	36	2	22	26	864	98	105	1,167	35	2,562					
	APPROACH %	59%	2%	39%	60%	3%	37%	3%	87%	10%	8%	89%	3%						
	PEAK HR FACTOR		0.877			0.750			0.898			0.874		0.893					
	APP/DEPART	207	/	62	60	/	207	988	/	980	1,307	/	1,313	0					



		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	7:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
	7:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	8:00 AM	0	0	1	0	0	0	0	0	0	0	1	1	3
	8:15 AM	0	2	0	0	0	0	0	0	2	0	0	0	4
	8:30 AM	0	2	0	0	0	0	0	0	0	0	0	1	3
	8:45 AM	0	2	0	0	1	2	0	0	0	0	0	0	5
	TOTAL	0	9	2	0	3	2	0	0	2	0	1	2	21
MD	11:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	2
	11:15 AM	0	1	2	0	0	4	0	0	1	0	0	0	8
	11:30 AM	0	0	0	1	0	0	0	2	1	0	0	0	4
	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:30 PM	0	0	1	0	0	0	0	0	1	0	0	0	2
	12:45 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	TOTAL	0	2	3	1	2	4	0	2	5	0	0	1	20
PM	3:30 PM	0	1	1	0	0	0	0	0	1	0	0	1	4
	3:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
	4:00 PM	0	1	0	0	0	1	0	0	0	0	0	1	3
	4:15 PM	0	2	0	0	0	0	0	0	1	0	0	0	3
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	1	0	0	0	0	1	0	0	0	0	2
	5:15 PM	0	2	0	0	0	0	0	0	1	0	0	1	4
	TOTAL	0	6	3	0	0	1	0	1	3	0	0	3	17



INTERSECTION TURNING MOVEMENT COUNTS

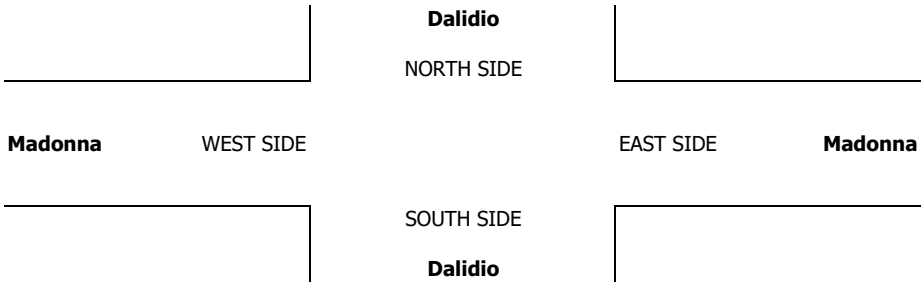
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	San Luis Obispo	PROJECT #:	SC0843
Tue, Apr 5, 16	NORTH & SOUTH:	Dalidio	LOCATION #:	86
	EAST & WEST:	Madonna	CONTROL:	SIGNAL

NOTES:

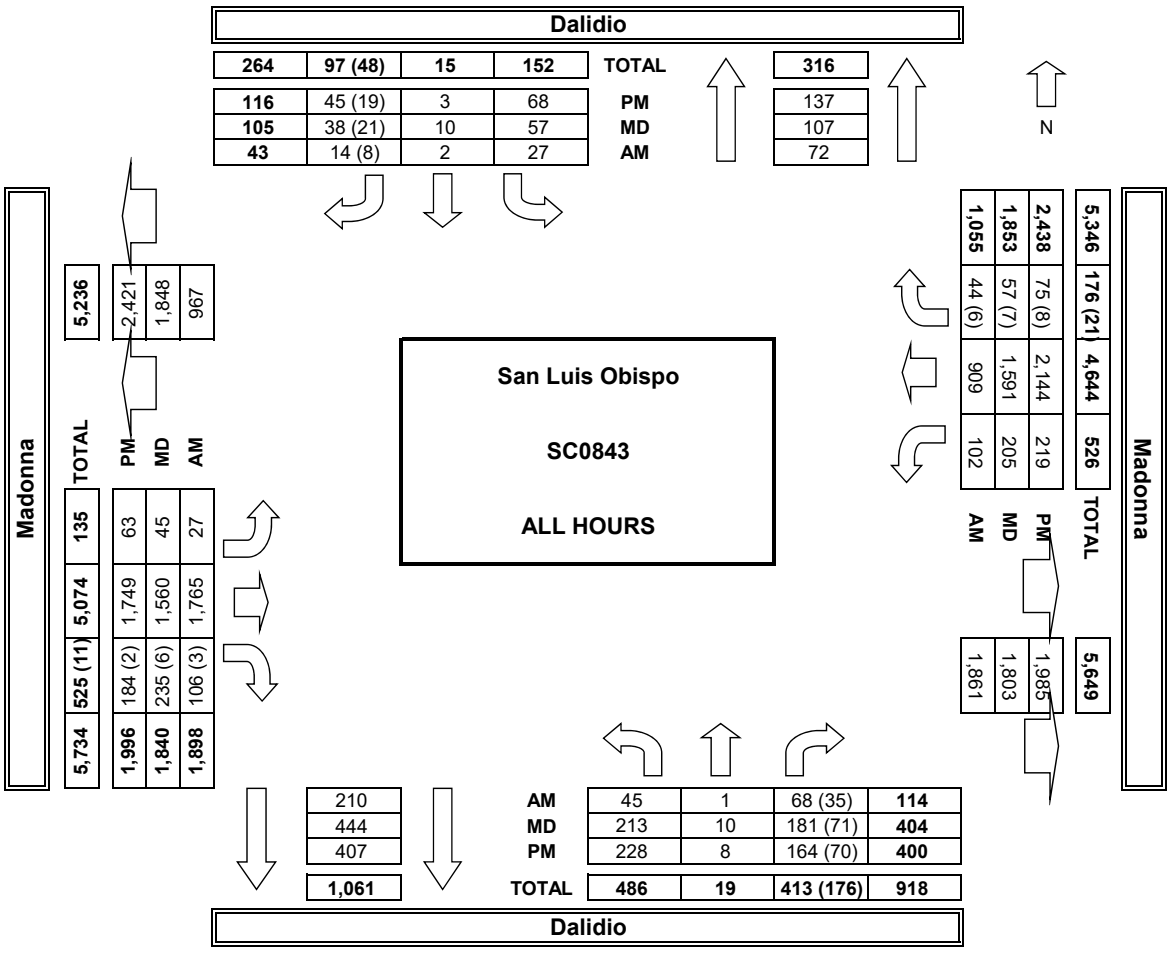
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

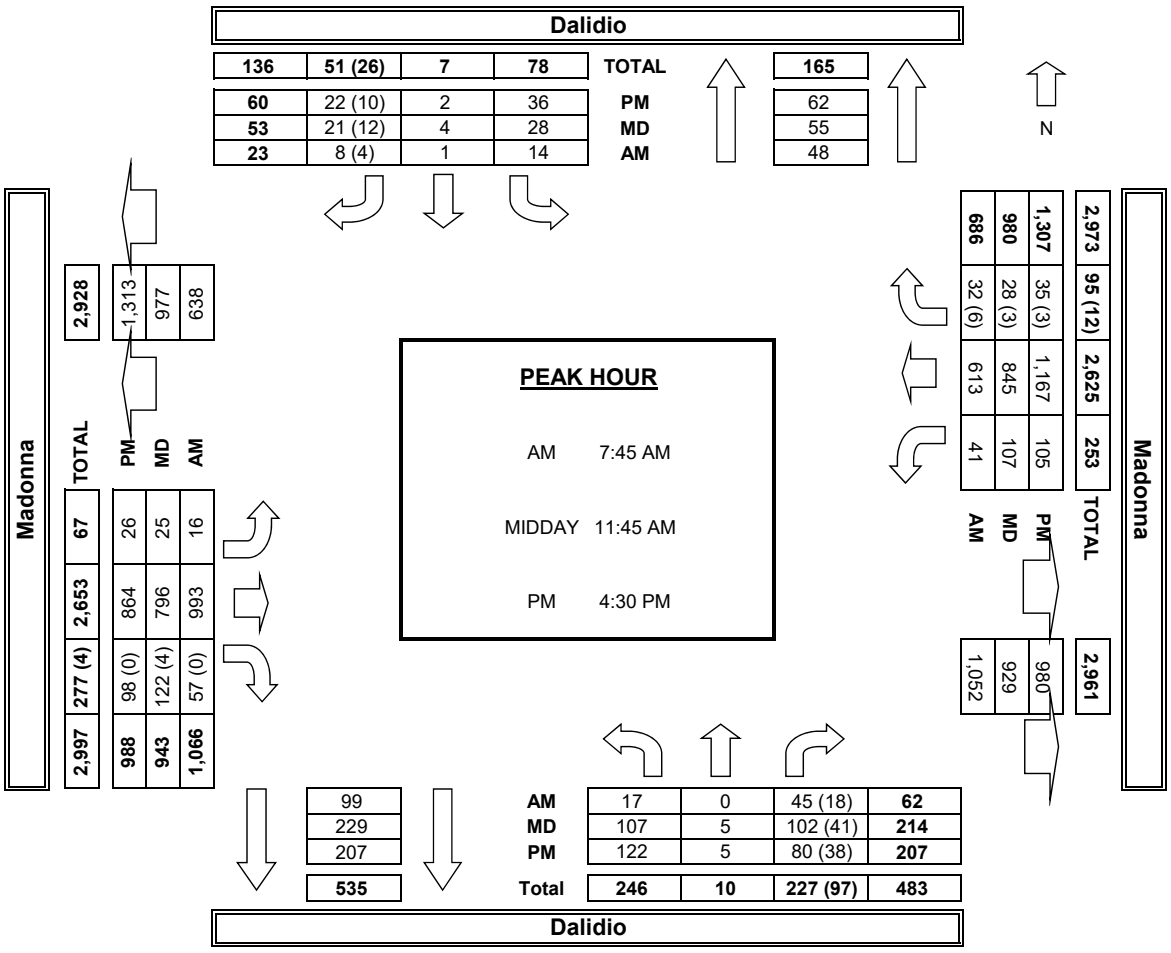
		NORTHBOUND Dalidio			SOUTHBOUND Dalidio			EASTBOUND Madonna			WESTBOUND Madonna			
	LANES:	NL 0.5	NT 0.5	NR 1	SL 0.5	ST 0.5	SR 1	EL 1	ET 1.5	ER 0.5	WL 1	WT 3	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	4	0	0	2	0	6
	7:30 AM	0	0	0	0	0	0	0	3	0	0	2	0	5
	7:45 AM	0	0	0	0	0	1	0	4	0	0	3	0	8
	8:00 AM	0	0	0	0	0	0	0	5	0	0	2	0	7
	8:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
	8:30 AM	0	0	0	0	0	0	0	4	0	0	1	0	5
	8:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	VOLUMES	0	0	0	0	0	1	0	24	0	0	12	0	37
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	1	/	0	24	/	24	12	/	13	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	1	0	16	0	0	9	0	26
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.250			0.800			0.750		0.813
	APP/DEPART	0	/	0	1	/	0	16	/	16	9	/	10	0
MD	11:00 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
	11:15 AM	0	0	0	0	0	0	0	5	0	0	2	0	7
	11:30 AM	0	0	0	0	0	0	0	2	0	0	3	0	5
	11:45 AM	1	0	0	0	2	0	0	2	0	0	1	0	6
	12:00 PM	0	0	0	0	0	0	0	3	0	0	5	0	8
	12:15 PM	0	0	0	0	0	0	0	2	0	0	4	0	6
	12:30 PM	0	0	0	0	1	0	0	5	0	0	1	0	7
	12:45 PM	0	1	0	0	0	0	0	2	0	0	1	0	4
	VOLUMES	1	1	0	0	3	0	0	23	0	0	18	0	46
	APPROACH %	50%	50%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	2	/	1	3	/	3	23	/	23	18	/	19	0
	BEGIN PEAK HR		11:45 AM											
	VOLUMES	1	0	0	0	3	0	0	12	0	0	11	0	27
	APPROACH %	100%	0%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.375			0.600			0.550		0.844
	APP/DEPART	1	/	0	3	/	3	12	/	12	11	/	12	0
PM	03:30 PM	0	0	0	0	0	0	0	2	1	0	5	0	8
	3:45 PM	0	1	2	0	1	0	0	3	0	0	0	0	7
	4:00 PM	0	0	0	0	0	0	0	3	0	0	2	0	5
	4:15 PM	1	0	0	1	0	1	0	3	0	0	6	0	12
	4:30 PM	0	0	0	0	0	0	0	1	0	0	7	0	8
	4:45 PM	0	0	0	1	0	0	0	2	0	0	2	0	5
	5:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	5:15 PM	0	0	0	0	1	1	0	2	0	0	2	0	6
	VOLUMES	1	1	2	2	2	2	0	17	1	0	26	0	54
	APPROACH %	25%	25%	50%	33%	33%	33%	0%	94%	6%	0%	100%	0%	
	APP/DEPART	4	/	1	6	/	3	18	/	21	26	/	29	0
	BEGIN PEAK HR		3:30 PM											
	VOLUMES	1	1	2	1	1	1	0	10	0	0	15	0	32
	APPROACH %	25%	25%	50%	33%	33%	33%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.333			0.375			0.833			0.536		0.667
	APP/DEPART	4	/	1	3	/	1	10	/	13	15	/	17	0



AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Mar 16, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Hwy 101 SB
EAST & WEST: Madonna

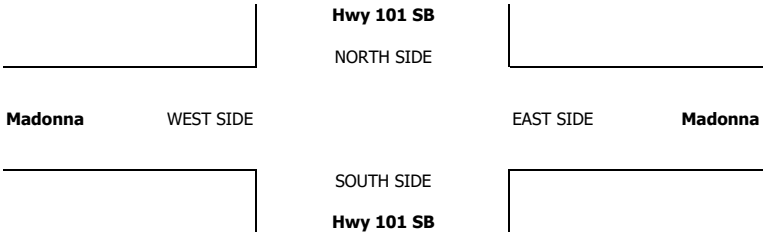
PROJECT #: SC0843
LOCATION #: 84
CONTROL: SIGNAL

NOTES:

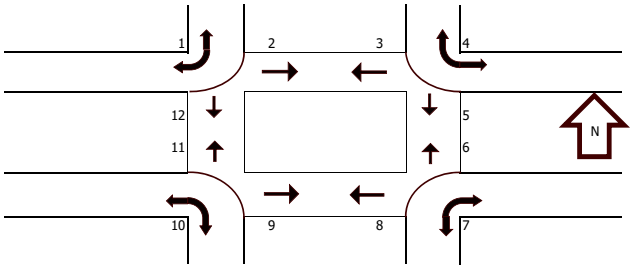
AM / PM / MD / OTHER / OTHER — N ▲ / ◄ W / E ► / S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Hwy 101 SB			SOUTHBOUND Hwy 101 SB			EASTBOUND Madonna			WESTBOUND Madonna				U-TURNS				
	LANES:	NL 1.5	NT 0.5	NR 1	SL 1.5	ST 0.5	SR 1	EL 1	ET 2.5	ER 0.5	WL 1	WT 2.5	WR 0.5	TOTAL	NB 0	SB 0	EB 0	WB X	TTL
AM	7:00 AM	43	4	47	1	1	1	6	82	14	11	52	4	266	0	0	3	0	3
	7:15 AM	53	0	79	3	0	1	2	153	18	25	66	4	404	0	0	1	0	1
	7:30 AM	57	3	102	1	0	1	3	256	12	32	66	5	538	0	0	3	0	3
	7:45 AM	110	5	157	4	1	1	6	295	7	25	126	7	744	0	0	3	0	3
	8:00 AM	89	0	107	0	3	1	2	264	13	25	119	3	626	0	0	2	0	2
	8:15 AM	63	4	134	2	1	2	5	257	16	32	114	4	634	0	0	3	0	3
	8:30 AM	69	1	102	5	2	3	12	228	26	28	76	5	557	0	0	5	0	5
	8:45 AM	68	3	108	2	0	3	10	219	25	33	115	5	591	0	0	6	0	6
	VOLUMES	552	20	836	18	8	13	46	1,754	131	211	734	37	4,360	0	0	26	0	26
	APPROACH %	39%	1%	59%	46%	21%	33%	2%	91%	7%	21%	75%	4%						
	APP/DEPART	1,408	/	77	39	/	350	1,931	/	2,608	982	/	1,325	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	331	10	500	11	7	7	25	1,044	62	110	435	19	2,561					
	APPROACH %	39%	1%	59%	44%	28%	28%	2%	92%	5%	20%	77%	3%						
	PEAK HR FACTOR		0.773			0.625			0.918			0.892		0.861					
	APP/DEPART	841	/	41	25	/	179	1,131	/	1,555	564	/	786	0					
MD	11:00 AM	102	7	48	6	2	4	6	202	28	23	134	15	577	0	0	3	0	3
	11:15 AM	96	8	42	7	2	2	13	197	28	28	166	11	600	0	0	7	0	7
	11:30 AM	141	9	63	4	1	10	7	275	35	27	160	15	747	0	0	2	0	2
	11:45 AM	119	28	67	4	4	5	7	253	30	32	191	22	762	0	0	0	0	0
	12:00 PM	149	15	66	11	3	7	8	260	41	27	221	21	829	0	0	6	0	6
	12:15 PM	139	5	50	3	7	5	7	256	36	37	187	11	743	0	0	3	0	3
	12:30 PM	142	7	59	5	2	6	7	276	40	25	216	5	790	0	0	3	0	3
	12:45 PM	134	6	60	12	4	11	6	306	36	27	182	11	795	0	0	5	0	5
	VOLUMES	1,022	85	455	52	25	50	61	2,025	274	226	1,457	111	5,843	0	0	29	0	29
	APPROACH %	65%	5%	29%	41%	20%	39%	3%	86%	12%	13%	81%	6%						
	APP/DEPART	1,562	/	228	127	/	525	2,360	/	2,532	1,794	/	2,558	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	564	33	235	31	16	29	28	1,098	153	116	806	48	3,157					
	APPROACH %	68%	4%	28%	41%	21%	38%	2%	86%	12%	12%	83%	5%						
	PEAK HR FACTOR		0.904			0.704			0.919			0.901		0.952					
	APP/DEPART	832	/	92	76	/	285	1,279	/	1,364	970	/	1,416	0					
PM	03:00 PM	127	6	58	9	6	5	4	297	49	47	195	5	808	0	0	3	0	3
	3:15 PM	142	4	66	2	4	5	6	276	46	29	177	6	763	0	0	5	0	5
	3:30 PM	148	5	62	7	5	2	6	245	39	50	198	3	770	0	0	1	0	1
	3:45 PM	154	10	67	6	4	1	6	276	42	47	204	8	825	0	0	2	0	2
	4:00 PM	170	3	47	7	5	5	10	286	38	56	229	5	861	0	0	6	0	6
	4:15 PM	198	8	61	4	4	4	11	268	33	39	239	5	874	0	0	5	0	5
	4:30 PM	153	6	44	2	2	5	6	267	37	41	238	3	804	0	0	3	0	3
	4:45 PM	130	6	56	4	1	2	8	276	21	39	180	2	725	0	0	6	0	6
	VOLUMES	1,222	48	461	41	31	29	57	2,191	305	348	1,660	37	6,430	0	0	31	0	31
	APPROACH %	71%	3%	27%	41%	31%	29%	2%	86%	12%	17%	81%	2%						
	APP/DEPART	1,731	/	111	101	/	684	2,553	/	2,693	2,045	/	2,942	0					
	BEGIN PEAK HR		3:45 PM																
	VOLUMES	675	27	219	19	15	15	33	1,097	150	183	910	21	3,364					
	APPROACH %	73%	3%	24%	39%	31%	31%	3%	86%	12%	16%	82%	2%						
	PEAK HR FACTOR		0.862			0.721			0.958			0.960		0.962					
	APP/DEPART	921	/	65	49	/	348	1,280	/	1,335	1,114	/	1,616	0					



		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:00 AM	1	0	1	0	0	0	0	0	1	1	0	0	4
	7:15 AM	0	0	1	0	0	0	0	1	0	0	0	0	2
	7:30 AM	0	0	0	0	0	0	0	1	1	0	1	1	4
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	5	2	0	1	0	8
	8:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	8:30 AM	0	0	1	0	0	0	0	3	1	0	1	0	6
	8:45 AM	1	1	1	0	0	1	0	1	0	0	0	0	5
	TOTAL	3	1	4	0	0	1	0	11	5	1	3	1	30
MD	11:00 AM	0	1	0	0	0	0	0	1	0	0	1	0	3
	11:15 AM	0	0	0	0	0	0	0	2	0	0	2	0	4
	11:30 AM	1	0	0	0	0	0	0	0	2	0	0	0	3
	11:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	12:15 PM	1	0	0	0	0	0	0	1	1	0	1	0	4
	12:30 PM	0	1	0	0	0	0	0	0	1	0	0	2	4
	12:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	2
	TOTAL	2	2	0	0	0	0	0	4	5	0	5	4	22
PM	3:00 PM	0	0	0	0	0	0	0	2	3	0	0	0	5
	3:15 PM	0	0	0	0	0	0	0	1	1	0	0	2	4
	3:30 PM	1	0	0	0	0	0	0	1	0	0	0	0	2
	3:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	2
	4:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	4:15 PM	3	0	0	0	0	0	0	0	0	0	1	1	5
	4:30 PM	0	0	0	0	0	0	0	1	1	0	0	0	2
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	4	0	0	0	0	0	0	7	6	0	1	4	22



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	San Luis Obispo	PROJECT #:	SC0843
Wed, Mar 16, 16	NORTH & SOUTH:	Hwy 101 SB	LOCATION #:	84
	EAST & WEST:	Madonna	CONTROL:	SIGNAL

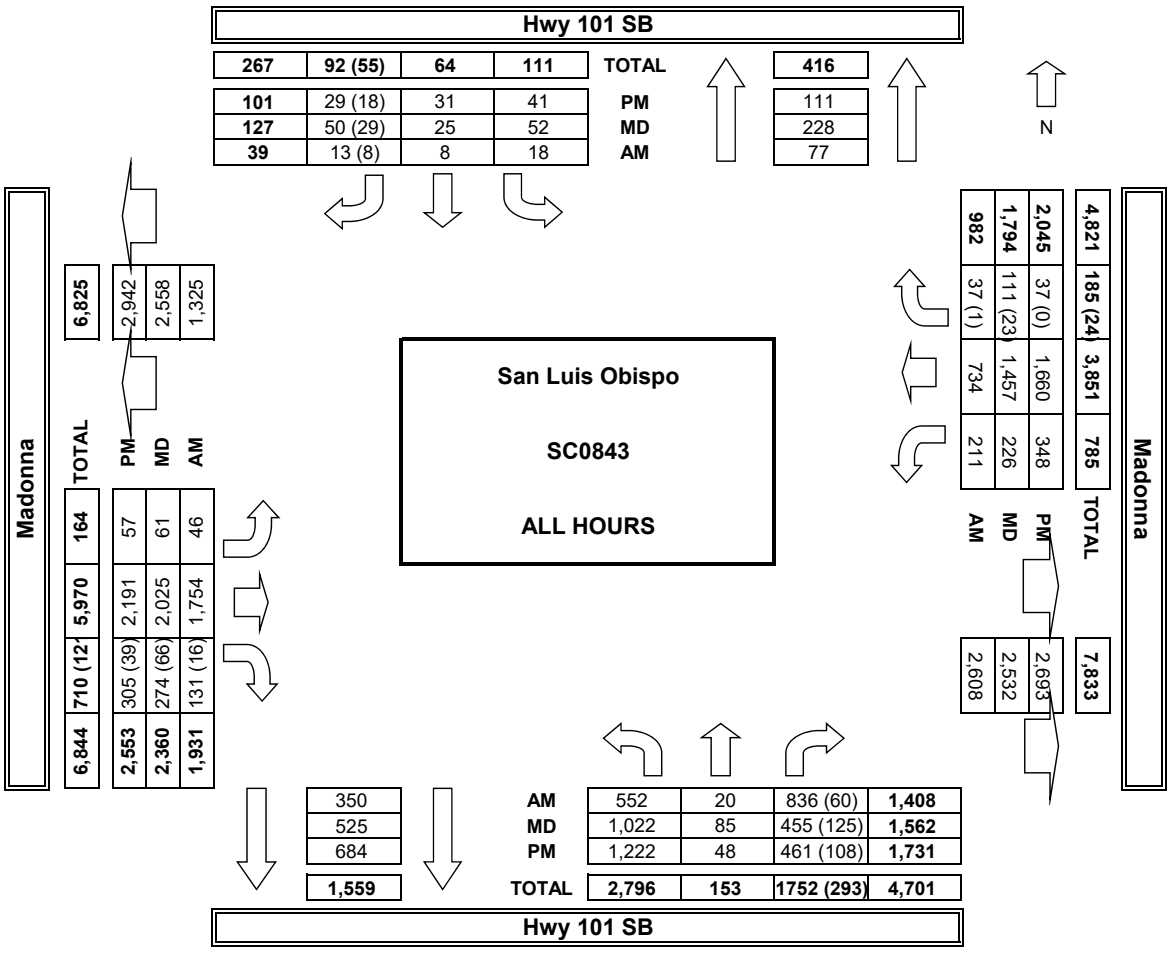
NOTES:

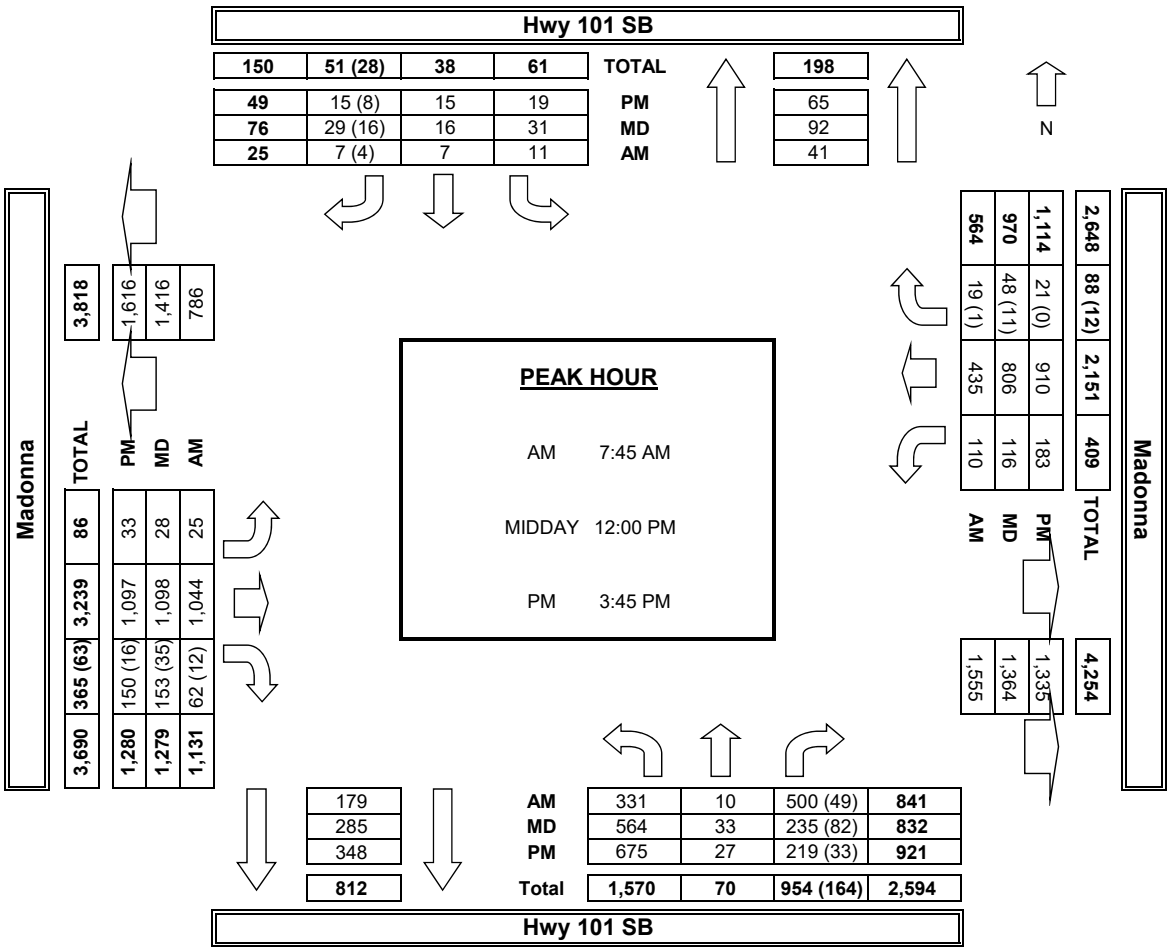
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Hwy 101 SB			SOUTHBOUND Hwy 101 SB			EASTBOUND Madonna			WESTBOUND Madonna			
	LANES:	NL 1.5	NT 0.5	NR 1	SL 1.5	ST 0.5	SR 1	EL 1	ET 2.5	ER 0.5	WL 1	WT 2.5	WR 0.5	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	7:30 AM	0	0	0	0	0	0	0	5	0	0	1	0	6
	7:45 AM	0	1	0	0	0	0	0	2	0	0	0	0	3
	8:00 AM	0	0	1	0	0	1	0	3	0	0	1	0	6
	8:15 AM	0	0	0	0	0	0	0	3	0	0	1	1	5
	8:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	8:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	VOLUMES	0	1	1	0	0	1	0	19	0	0	5	1	28
	APPROACH %	0%	50%	50%	0%	0%	100%	0%	100%	0%	0%	83%	17%	
	APP/DEPART	2	/	2	1	/	0	19	/	20	6	/	6	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	1	1	0	0	1	0	13	0	0	3	1	20
	APPROACH %	0%	50%	50%	0%	0%	100%	0%	100%	0%	0%	75%	25%	
	PEAK HR FACTOR		0.500			0.250			0.650			0.500		0.833
	APP/DEPART	2	/	2	1	/	0	13	/	14	4	/	4	0
MD	11:00 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
	11:15 AM	0	0	0	3	0	0	1	5	0	0	3	0	12
	11:30 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
	11:45 AM	0	0	0	0	0	1	0	1	0	0	3	0	5
	12:00 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
	12:15 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
	12:30 PM	0	0	0	0	0	0	2	2	0	0	1	0	5
	12:45 PM	0	0	0	0	0	0	0	3	0	0	1	0	4
	VOLUMES	0	0	0	3	0	1	3	19	0	0	13	0	39
	APPROACH %	0%	0%	0%	75%	0%	25%	14%	86%	0%	0%	100%	0%	
	APP/DEPART	0	/	3	4	/	0	22	/	22	13	/	14	0
	BEGIN PEAK HR		11:00 AM											
	VOLUMES	0	0	0	3	0	1	1	9	0	0	10	0	24
	APPROACH %	0%	0%	0%	75%	0%	25%	10%	90%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.333			0.417			0.833		0.500
	APP/DEPART	0	/	1	4	/	0	10	/	12	10	/	11	0
PM	03:00 PM	0	0	0	0	0	0	0	2	0	0	3	0	5
	3:15 PM	0	0	0	0	0	0	0	4	0	0	2	0	6
	3:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	3:45 PM	0	0	0	0	0	0	1	1	0	0	4	0	6
	4:00 PM	0	0	0	0	0	1	1	2	0	0	0	0	4
	4:15 PM	0	0	0	0	0	0	0	1	0	0	3	0	4
	4:30 PM	1	0	0	0	0	0	1	1	0	0	4	0	7
	4:45 PM	0	0	0	0	0	4	0	2	0	0	2	0	8
	VOLUMES	1	0	0	0	0	5	3	14	0	0	19	0	42
	APPROACH %	100%	0%	0%	0%	0%	100%	18%	82%	0%	0%	100%	0%	
	APP/DEPART	1	/	3	5	/	0	17	/	14	19	/	25	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	0	0	0	0	5	2	6	0	0	9	0	23
	APPROACH %	100%	0%	0%	0%	0%	100%	25%	75%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.313			0.667			0.563		0.719
	APP/DEPART	1	/	2	5	/	0	8	/	6	9	/	15	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, Mar 16, 16

LOCATION: San Luis Obispo
NORTH & SOUTH: Hwy 101 NB
EAST & WEST: Madonna

PROJECT #: SC0843
LOCATION #: 83
CONTROL: SIGNAL

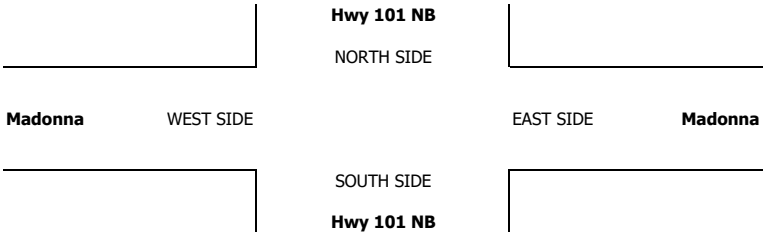
NOTES:

AM / PM / MD / OTHER / OTHER

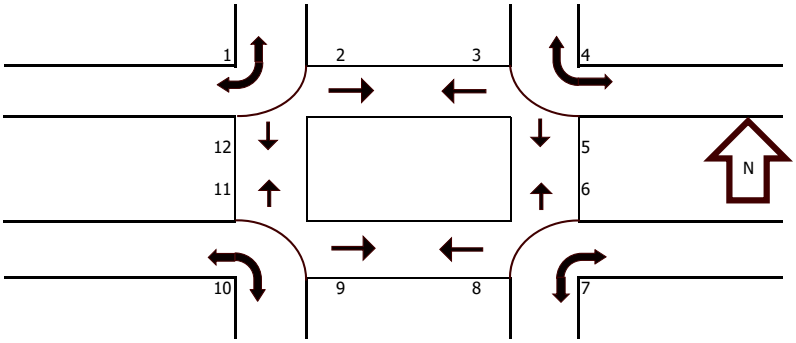
▲ N ◄ W E ► S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND Hwy 101 NB			SOUTHBOUND Hwy 101 NB			EASTBOUND Madonna			WESTBOUND Madonna				U-TURNS				
	LANES:	NL 1	NT 0.5	NR 0.5	SL X	ST X	SR X	EL 2	ET 2	ER X	WL X	WT 2	WR 0	TOTAL	NB X	SB X	EB X	WB X	TTL
AM	7:00 AM	16	0	29	0	0	0	45	117	0	0	59	11	277	0	0	0	0	0
	7:15 AM	26	0	30	0	0	0	72	169	0	0	74	12	383	0	0	0	0	0
	7:30 AM	24	1	40	0	0	0	135	201	0	0	83	23	507	0	0	0	0	0
	7:45 AM	25	0	47	0	0	0	164	321	0	0	144	20	721	0	0	0	0	0
	8:00 AM	29	1	49	0	0	0	114	255	0	0	117	25	590	0	0	1	0	1
	8:15 AM	31	2	32	0	0	0	100	255	0	0	110	25	555	0	0	0	0	0
	8:30 AM	15	0	48	0	0	0	104	218	0	0	95	34	514	0	0	0	0	0
	8:45 AM	29	0	41	0	0	0	131	191	0	0	115	26	533	0	0	0	0	0
	VOLUMES	195	4	316	0	0	0	865	1,727	0	0	797	176	4,080	0	0	1	0	1
	APPROACH %	38%	1%	61%	0%	0%	0%	33%	67%	0%	0%	82%	18%						
	APP/DEPART	515	/	1,044	0	/	0	2,592	/	2,043	973	/	993	0					
	BEGIN PEAK HR		7:45 AM																
	VOLUMES	100	3	176	0	0	0	482	1,049	0	0	466	104	2,380					
	APPROACH %	36%	1%	63%	0%	0%	0%	31%	69%	0%	0%	82%	18%						
	PEAK HR FACTOR		0.883			0.000			0.789			0.869		0.825					
	APP/DEPART	279	/	588	0	/	0	1,531	/	1,225	570	/	567	0					
MD	11:00 AM	35	1	25	0	0	0	111	161	0	0	152	29	514	0	0	0	0	0
	11:15 AM	35	0	36	0	0	0	95	151	0	0	168	34	519	0	0	0	0	0
	11:30 AM	37	0	33	0	0	0	132	197	0	0	164	22	585	0	0	0	0	0
	11:45 AM	51	1	33	0	0	0	115	171	0	0	182	25	578	0	0	0	0	0
	12:00 PM	65	0	21	0	0	0	132	213	0	0	219	29	679	0	0	0	0	0
	12:15 PM	53	0	32	0	0	0	129	189	0	0	163	34	600	0	0	0	0	0
	12:30 PM	57	0	21	0	0	0	119	199	0	0	191	35	622	0	0	0	0	0
	12:45 PM	48	0	33	0	0	0	159	220	0	0	181	29	670	0	0	0	0	0
	VOLUMES	381	2	234	0	0	0	992	1,501	0	0	1,420	237	4,767	0	0	0	0	0
	APPROACH %	62%	0%	38%	0%	0%	0%	40%	60%	0%	0%	86%	14%						
	APP/DEPART	617	/	1,231	0	/	0	2,493	/	1,735	1,657	/	1,801	0					
	BEGIN PEAK HR		12:00 PM																
	VOLUMES	223	0	107	0	0	0	539	821	0	0	754	127	2,571					
	APPROACH %	68%	0%	32%	0%	0%	0%	40%	60%	0%	0%	86%	14%						
	PEAK HR FACTOR		0.959			0.000			0.897			0.888		0.947					
	APP/DEPART	330	/	666	0	/	0	1,360	/	928	881	/	977	0					
PM	04:00 PM	40	0	35	0	0	0	158	184	0	0	211	45	673	0	0	0	0	0
	4:15 PM	43	1	28	0	0	0	109	230	0	0	188	39	638	0	0	0	0	0
	4:30 PM	45	0	31	0	0	0	117	171	0	0	213	55	632	0	0	0	0	0
	4:45 PM	56	0	33	0	0	0	149	208	0	0	224	43	713	0	0	0	0	0
	5:00 PM	50	0	32	0	0	0	131	191	0	0	249	56	709	0	0	0	0	0
	5:15 PM	52	0	34	0	0	0	132	204	0	0	235	52	709	0	0	0	0	0
	5:30 PM	56	0	36	0	0	0	143	174	0	0	226	41	676	0	0	0	0	0
	5:45 PM	44	1	31	0	0	0	152	187	0	0	179	27	621	0	0	0	0	0
	VOLUMES	386	2	260	0	0	0	1,091	1,549	0	0	1,725	358	5,371	0	0	0	0	0
	APPROACH %	60%	0%	40%	0%	0%	0%	41%	59%	0%	0%	83%	17%						
	APP/DEPART	648	/	1,451	0	/	0	2,640	/	1,809	2,083	/	2,111	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	214	0	135	0	0	0	555	777	0	0	934	192	2,807					
	APPROACH %	61%	0%	39%	0%	0%	0%	42%	58%	0%	0%	83%	17%						
	PEAK HR FACTOR		0.948			0.000			0.933			0.923		0.984					
	APP/DEPART	349	/	747	0	/	0	1,332	/	912	1,126	/	1,148	0					



		PEDESTRIAN CROSSINGS												
		1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
	7:30 AM	0	1	0	0	0	0	0	0	1	0	0	0	2
	7:45 AM	0	0	0	0	0	1	0	0	1	0	0	0	2
	8:00 AM	0	0	0	0	0	4	1	0	4	0	0	0	9
	8:15 AM	0	0	0	0	0	0	0	1	2	0	0	0	3
	8:30 AM	0	0	0	0	0	2	0	0	2	0	0	0	4
	8:45 AM	0	0	0	0	0	0	0	1	1	0	0	0	2
	TOTAL	0	1	0	0	0	7	1	2	12	0	0	0	23
MD	11:00 AM	0	0	0	0	0	0	0	0	4	0	0	0	4
	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:30 AM	0	0	0	0	0	1	0	2	0	0	0	0	3
	11:45 AM	0	1	0	0	0	0	0	0	1	0	0	0	2
	12:00 PM	0	0	0	0	0	1	0	0	2	0	0	0	3
	12:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	12:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	2
	12:45 PM	0	0	0	0	0	1	0	0	1	0	0	0	2
	TOTAL	0	1	0	0	1	3	0	4	8	0	0	0	17
PM	4:00 PM	0	0	0	0	0	0	0	4	1	0	0	0	5
	4:15 PM	1	0	0	0	0	0	0	0	1	0	0	0	2
	4:30 PM	1	0	0	0	0	0	0	1	1	0	0	0	3
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	1	0	0	1	0	0	0	1	0	0	0	3
	5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	2	1	0	0	1	0	0	6	5	0	0	0	15



INTERSECTION TURNING MOVEMENT COUNTS

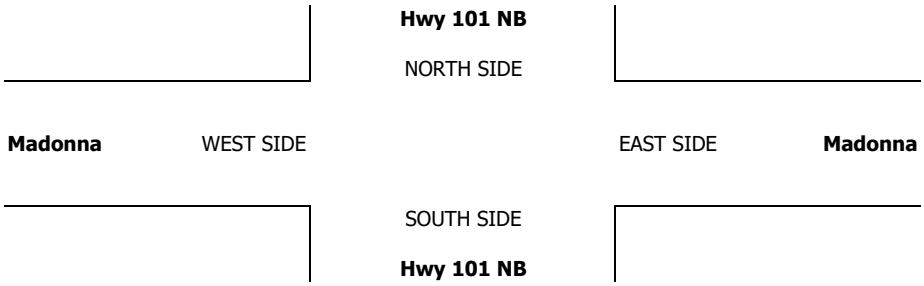
PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	San Luis Obispo	PROJECT #:	SC0843
Wed, Mar 16, 16	NORTH & SOUTH:	Hwy 101 NB	LOCATION #:	83
	EAST & WEST:	Madonna	CONTROL:	SIGNAL

NOTES:

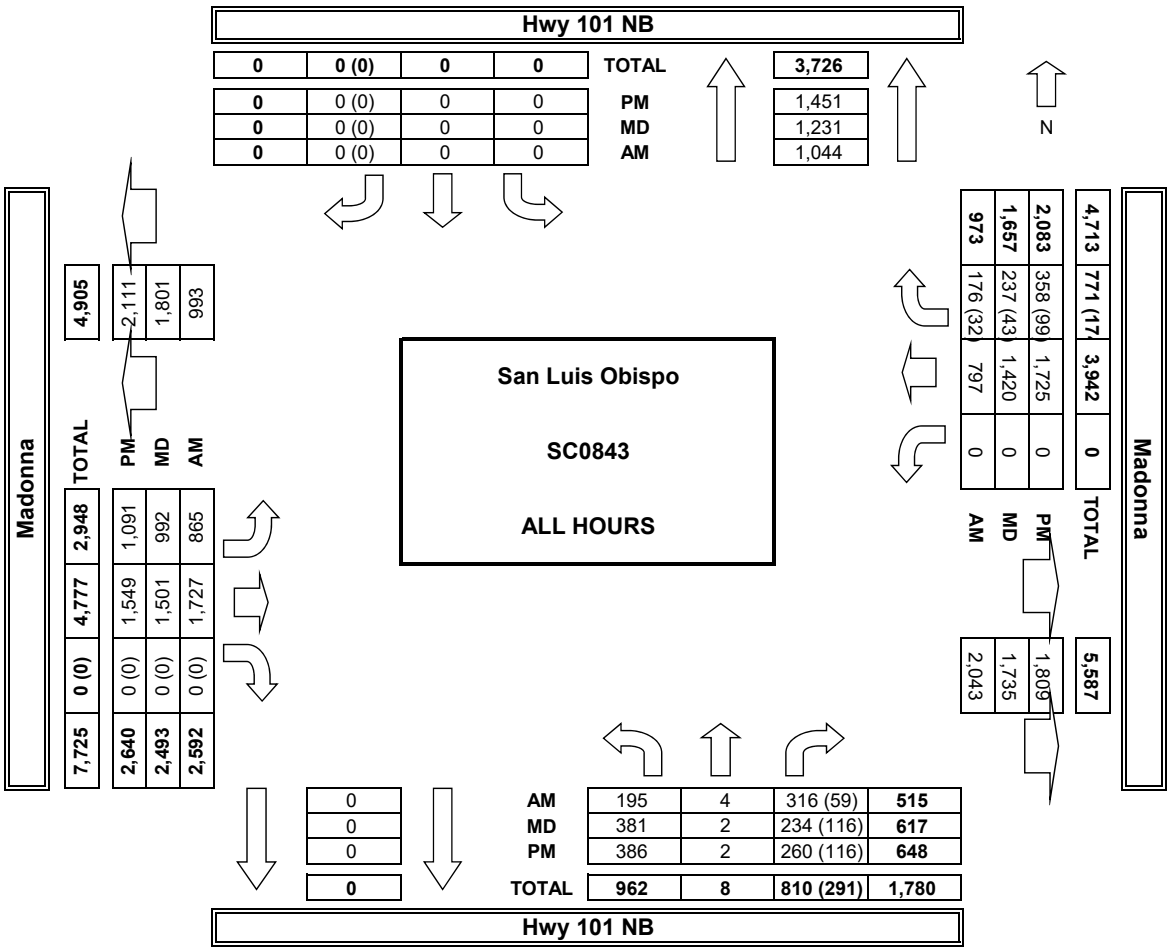
AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

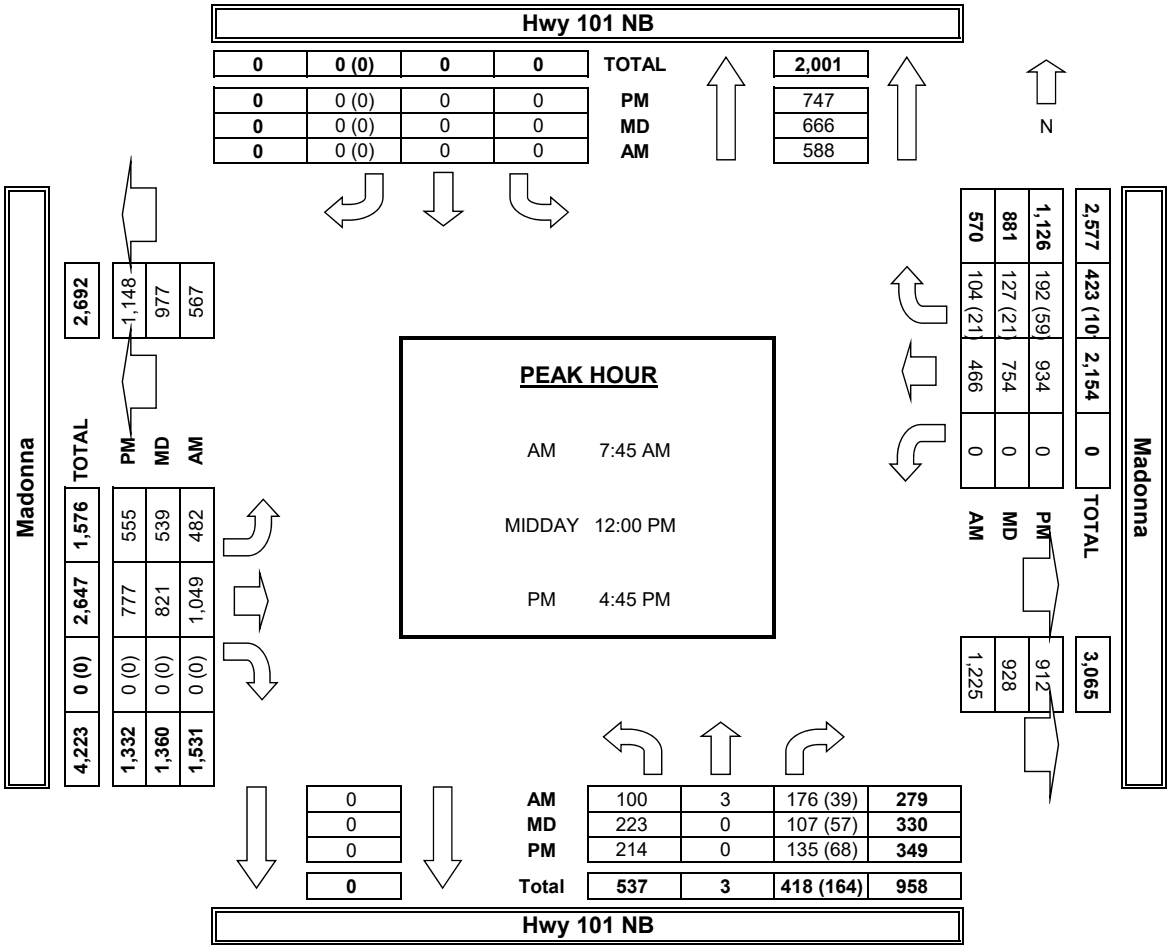
		NORTHBOUND Hwy 101 NB			SOUTHBOUND Hwy 101 NB			EASTBOUND Madonna			WESTBOUND Madonna			
	LANES:	NL 1	NT 0.5	NR 0.5	SL X	ST X	SR X	EL 2	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	7:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
	7:30 AM	0	0	0	0	0	0	0	5	0	0	1	0	6
	7:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	8:00 AM	0	0	0	0	0	0	0	3	0	0	1	0	4
	8:15 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
	8:30 AM	0	0	0	0	0	0	0	3	0	0	2	0	5
	8:45 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
	VOLUMES	0	0	0	0	0	0	0	20	0	0	8	0	28
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	0	/	0	0	/	0	20	/	20	8	/	8	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	10	0	0	5	0	15
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.500			0.625		0.625
	APP/DEPART	0	/	0	0	/	0	10	/	10	5	/	5	0
MD	11:00 AM	0	0	0	0	0	0	0	2	0	0	2	1	5
	11:15 AM	0	0	0	0	0	0	0	6	0	0	2	0	8
	11:30 AM	0	0	0	0	0	0	0	1	0	0	3	0	4
	11:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	12:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	12:15 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
	12:30 PM	0	0	0	0	0	0	0	3	0	0	0	0	3
	12:45 PM	0	0	0	0	0	0	0	3	0	0	1	0	4
	VOLUMES	0	0	0	0	0	0	0	17	0	0	11	1	29
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	92%	8%	
	APP/DEPART	0	/	1	0	/	0	17	/	17	12	/	11	0
	BEGIN PEAK HR		11:00 AM											
	VOLUMES	0	0	0	0	0	0	0	9	0	0	8	1	18
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	89%	11%	
	PEAK HR FACTOR		0.000			0.000			0.375			0.750		0.563
	APP/DEPART	0	/	1	0	/	0	9	/	9	9	/	8	0
PM	04:00 PM	0	0	0	0	0	0	0	2	0	0	3	0	5
	4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	4:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
	4:45 PM	0	0	0	0	0	0	0	2	0	0	6	0	8
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
	5:30 PM	0	1	0	0	0	1	0	1	0	0	3	0	6
	5:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	3
	VOLUMES	0	1	0	0	0	1	0	9	0	0	18	0	29
	APPROACH %	0%	100%	0%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
	APP/DEPART	1	/	1	1	/	0	9	/	9	18	/	19	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	1	0	0	0	1	0	5	0	0	11	0	18
	APPROACH %	0%	100%	0%	0%	0%	100%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.250			0.250			0.625			0.458		0.563
	APP/DEPART	1	/	1	1	/	0	5	/	5	11	/	12	0



AimTD LLC

TURNING MOVEMENT COUNTS





Volumes for: Tuesday, April 05, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: **ADT95 Los Osos between City Line and Descanso, Lat: 35°15'55.32"N; Long: 120°42'2.12"W**

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: **Sunny**

DAY 1

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	10		5		0		0			12:00	169		138		0		0		
0:15	14		9		0		0			12:15	150		151		0		0		
0:30	14		7		0		0			12:30	160		157		0		0		
0:45	7	45	4	25	0	0	0	0	70	12:45	149	628	142	588	0	0	0	0	1216
1:00	3		5		0		0			13:00	192		136		0		0		
1:15	5		6		0		0			13:15	174		143		0		0		
1:30	5		1		0		0			13:30	161		153		0		0		
1:45	6	19	7	19	0	0	0	0	38	13:45	174	701	150	582	0	0	0	0	1283
2:00	5		7		0		0			14:00	197		134		0		0		
2:15	2		4		0		0			14:15	169		151		0		0		
2:30	3		1		0		0			14:30	194		163		0		0		
2:45	1	11	2	14	0	0	0	0	25	14:45	187	747	168	616	0	0	0	0	1363
3:00	1		2		0		0			15:00	211		216		0		0		
3:15	1		3		0		0			15:15	219		171		0		0		
3:30	3		3		0		0			15:30	192		158		0		0		
3:45	5	10	8	16	0	0	0	0	26	15:45	202	824	169	714	0	0	0	0	1538
4:00	0		6		0		0			16:00	224		189		0		0		
4:15	3		2		0		0			16:15	280		210		0		0		
4:30	6		13		0		0			16:30	213		167		0		0		
4:45	7	16	23	44	0	0	0	0	60	16:45	276	993	214	780	0	0	0	0	1773
5:00	12		25		0		0			17:00	256		172		0		0		
5:15	15		22		0		0			17:15	285		202		0		0		
5:30	16		41		0		0			17:30	267		155		0		0		
5:45	17	60	63	151	0	0	0	0	211	17:45	194	1002	144	673	0	0	0	0	1675
6:00	29		35		0		0			18:00	202		104		0		0		
6:15	32		66		0		0			18:15	186		115		0		0		
6:30	45		97		0		0			18:30	166		118		0		0		
6:45	78	184	124	322	0	0	0	0	506	18:45	169	723	96	433	0	0	0	0	1156
7:00	84		113		0		0			19:00	132		97		0		0		
7:15	78		161		0		0			19:15	142		93		0		0		
7:30	136		174		0		0			19:30	134		87		0		0		
7:45	122	420	224	672	0	0	0	0	1092	19:45	137	545	88	365	0	0	0	0	910
8:00	185		199		0		0			20:00	104		96		0		0		
8:15	134		196		0		0			20:15	105		78		0		0		
8:30	98		189		0		0			20:30	86		45		0		0		
8:45	122	539	164	748	0	0	0	0	1287	20:45	71	366	58	277	0	0	0	0	643
9:00	105		148		0		0			21:00	82		62		0		0		
9:15	109		142		0		0			21:15	69		39		0		0		
9:30	102		156		0		0			21:30	51		39		0		0		
9:45	118	434	161	607	0	0	0	0	1041	21:45	56	258	38	178	0	0	0	0	436
10:00	125		139		0		0			22:00	54		32		0		0		
10:15	124		149		0		0			22:15	44		47		0		0		
10:30	132		166		0		0			22:30	41		23		0		0		
10:45	129	510	142	596	0	0	0	0	1106	22:45	22	161	16	118	0	0	0	0	279
11:00	118		158		0		0			23:00	33		10		0		0		
11:15	145		145		0		0			23:15	26		12		0		0		
11:30	141		150		0		0			23:30	24		12		0		0		
11:45	148	552	169	622	0	0	0	0	1174	23:45	17	100	11	45	0	0	0	0	145
Total Vol.		2800		3836					**6636**			7048		5369					**12417**

Daily Totals

NB	SB	EB	WB	**Combined**
9848	9205			**19053**

	AM				**PM**			
Split %	42.2%	57.8%	**34.8%**		56.8%	43.2%		**65.2%**
Peak Hour	11:45	7:45	**7:30**		16:45	16:00		**16:45**
Volume	627	808	**1370**		1084	780		**1827**
P.H.F.	0.93	0.90	**0.89**		0.97	0.91		**0.93**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: Wednesday, April 06, 2016 **CITY:** San Luis Obis **PROJECT:** SC0843

Location: ADT95 Los Osos between City Line and Descanso, Lat: 35°15'55.32"N; Long: 120°42'2.12"W

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 2

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	12		6		0		0			12:00	191		151		0		0		
0:15	16		9		0		0			12:15	162		148		0		0		
0:30	16		8		0		0			12:30	175		159		0		0		
0:45	7	51	5	28	0	0	0	0	79	12:45	177	705	147	605	0	0	0	0	1310
1:00	3		5		0		0			13:00	163		117		0		0		
1:15	8		6		0		0			13:15	178		151		0		0		
1:30	6		1		0		0			13:30	190		140		0		0		
1:45	6	23	7	19	0	0	0	0	42	13:45	170	701	151	559	0	0	0	0	1260
2:00	5		7		0		0			14:00	180		144		0		0		
2:15	2		4		0		0			14:15	150		174		0		0		
2:30	3		1		0		0			14:30	219		143		0		0		
2:45	1	11	2	14	0	0	0	0	25	14:45	146	695	136	597	0	0	0	0	1292
3:00	1		2		0		0			15:00	195		228		0		0		
3:15	1		3		0		0			15:15	195		152		0		0		
3:30	3		4		0		0			15:30	217		143		0		0		
3:45	5	10	10	19	0	0	0	0	29	15:45	176	783	178	701	0	0	0	0	1484
4:00	0		8		0		0			16:00	240		157		0		0		
4:15	4		4		0		0			16:15	239		204		0		0		
4:30	6		15		0		0			16:30	219		168		0		0		
4:45	7	17	23	50	0	0	0	0	67	16:45	271	969	187	716	0	0	0	0	1685
5:00	13		28		0		0			17:00	248		176		0		0		
5:15	16		25		0		0			17:15	297		183		0		0		
5:30	18		42		0		0			17:30	252		154		0		0		
5:45	17	64	67	162	0	0	0	0	226	17:45	240	1037	138	651	0	0	0	0	1688
6:00	33		37		0		0			18:00	214		124		0		0		
6:15	34		69		0		0			18:15	184		133		0		0		
6:30	45		97		0		0			18:30	163		109		0		0		
6:45	80	192	127	330	0	0	0	0	522	18:45	161	722	111	477	0	0	0	0	1199
7:00	80		108		0		0			19:00	150		97		0		0		
7:15	79		170		0		0			19:15	141		92		0		0		
7:30	142		181		0		0			19:30	129		65		0		0		
7:45	139	440	231	690	0	0	0	0	1130	19:45	108	528	84	338	0	0	0	0	866
8:00	182		193		0		0			20:00	98		65		0		0		
8:15	131		226		0		0			20:15	95		87		0		0		
8:30	116		195		0		0			20:30	103		61		0		0		
8:45	109	538	177	791	0	0	0	0	1329	20:45	99	395	52	265	0	0	0	0	660
9:00	109		140		0		0			21:00	91		40		0		0		
9:15	122		137		0		0			21:15	67		57		0		0		
9:30	121		157		0		0			21:30	65		54		0		0		
9:45	124	476	184	618	0	0	0	0	1094	21:45	70	293	27	178	0	0	0	0	471
10:00	103		136		0		0			22:00	52		37		0		0		
10:15	119		135		0		0			22:15	37		31		0		0		
10:30	137		167		0		0			22:30	33		25		0		0		
10:45	122	481	136	574	0	0	0	0	1055	22:45	28	150	13	106	0	0	0	0	256
11:00	134		164		0		0			23:00	27		19		0		0		
11:15	141		163		0		0			23:15	30		11		0		0		
11:30	169		157		0		0			23:30	14		17		0		0		
11:45	149	593	142	626	0	0	0	0	1219	23:45	18	89	7	54	0	0	0	0	143
Total Vol.		2896		3921					**6817**			7067		5247					**12314**

Daily Totals

NB	SB	EB	Side	**Combined**
9963	9168			**19131**

	AM			**PM**		
Split %	42.5%	57.5%	**35.6%**	57.4%	42.6%	**64.4%**
Peak Hour	11:45	7:45	**7:30**	16:45	16:15	**16:45**
Volume	677	845	**1425**	1068	735	**1768**
P.H.F.	0.89	0.91	**0.95**	0.94	0.90	**0.92**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: Tuesday, April 05, 2016 & Wednesday, April 06, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT95 Los Osos between City Line and Descanso, Lat: 35°15'55.32"N; Long: 120°42'2.12"W

Prepared by AimTD LLC tel. 714 253 7888

2-DAY AVERAGE

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	11		6		0		0			12:00	180		145		0		0		
0:15	15		9		0		0			12:15	156		150		0		0		
0:30	15		8		0		0			12:30	168		158		0		0		
0:45	7	48	5	28	0	0	0	0	76	12:45	163	667	145	598	0	0	0	0	1265
1:00	3		5		0		0			13:00	178		127		0		0		
1:15	7		6		0		0			13:15	176		147		0		0		
1:30	6		1		0		0			13:30	176		147		0		0		
1:45	6	22	7	19	0	0	0	0	41	13:45	172	702	151	572	0	0	0	0	1274
2:00	5		7		0		0			14:00	189		139		0		0		
2:15	2		4		0		0			14:15	160		163		0		0		
2:30	3		1		0		0			14:30	207		153		0		0		
2:45	1	11	2	14	0	0	0	0	25	14:45	167	723	152	607	0	0	0	0	1330
3:00	1		2		0		0			15:00	203		222		0		0		
3:15	1		3		0		0			15:15	207		162		0		0		
3:30	3		4		0		0			15:30	205		151		0		0		
3:45	5	10	9	18	0	0	0	0	28	15:45	189	804	174	709	0	0	0	0	1513
4:00	0		7		0		0			16:00	232		173		0		0		
4:15	4		3		0		0			16:15	260		207		0		0		
4:30	6		14		0		0			16:30	216		168		0		0		
4:45	7	17	23	47	0	0	0	0	64	16:45	274	982	201	749	0	0	0	0	1731
5:00	13		27		0		0			17:00	252		174		0		0		
5:15	16		24		0		0			17:15	291		193		0		0		
5:30	17		42		0		0			17:30	260		155		0		0		
5:45	17	63	65	158	0	0	0	0	221	17:45	217	1020	141	663	0	0	0	0	1683
6:00	31		36		0		0			18:00	208		114		0		0		
6:15	33		68		0		0			18:15	185		124		0		0		
6:30	45		97		0		0			18:30	165		114		0		0		
6:45	79	188	126	327	0	0	0	0	515	18:45	165	723	104	456	0	0	0	0	1179
7:00	82		111		0		0			19:00	141		97		0		0		
7:15	79		166		0		0			19:15	142		93		0		0		
7:30	139		178		0		0			19:30	132		76		0		0		
7:45	131	431	228	683	0	0	0	0	1114	19:45	123	538	86	352	0	0	0	0	890
8:00	184		196		0		0			20:00	101		81		0		0		
8:15	133		211		0		0			20:15	100		83		0		0		
8:30	107		192		0		0			20:30	95		53		0		0		
8:45	116	540	171	770	0	0	0	0	1310	20:45	85	381	55	272	0	0	0	0	653
9:00	107		144		0		0			21:00	87		51		0		0		
9:15	116		140		0		0			21:15	68		48		0		0		
9:30	112		157		0		0			21:30	58		47		0		0		
9:45	121	456	173	614	0	0	0	0	1070	21:45	63	276	33	179	0	0	0	0	455
10:00	114		138		0		0			22:00	53		35		0		0		
10:15	122		142		0		0			22:15	41		39		0		0		
10:30	135		167		0		0			22:30	37		24		0		0		
10:45	126	497	139	586	0	0	0	0	1083	22:45	25	156	15	113	0	0	0	0	269
11:00	126		161		0		0			23:00	30		15		0		0		
11:15	143		154		0		0			23:15	28		12		0		0		
11:30	155		154		0		0			23:30	19		15		0		0		
11:45	149	573	156	625	0	0	0	0	1198	23:45	18	95	9	51	0	0	0	0	146
Total Vol.		2856		3889					**6745**			7067		5321					**12388**

Daily Totals

NB	SB	EB	WB	**Combined**
9923	9210			**19133**

	AM				**PM**			
Split %	42.3%	57.7%	**35.3%**		57.0%	43.0%		**64.7%**
Peak Hour	11:45	7:45	**7:30**		16:45	16:15		**16:45**
Volume	653	827	**1400**		1077	750		**1800**
P.H.F.	0.91	0.91	**0.92**		0.95	0.91		**0.93**

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Volumes for: Tuesday, April 05, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT97 Los Osos between Prefumo and Oceanaire, Lat: 35°15'38.36"N; Long: 120°41'41.72"W

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 1

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	14		5		0		0			12:00	215		199		0		0		
0:15	17		9		0		0			12:15	202		167		0		0		
0:30	12		4		0		0			12:30	219		181		0		0		
0:45	5	48	6	24	0	0	0	0	72	12:45	213	849	182	729	0	0	0	0	1578
1:00	8		5		0		0			13:00	219		187		0		0		
1:15	10		6		0		0			13:15	192		213		0		0		
1:30	2		7		0		0			13:30	212		190		0		0		
1:45	5	25	2	20	0	0	0	0	45	13:45	219	842	200	790	0	0	0	0	1632
2:00	7		1		0		0			14:00	210		179		0		0		
2:15	8		7		0		0			14:15	199		184		0		0		
2:30	2		1		0		0			14:30	248		204		0		0		
2:45	3	20	6	15	0	0	0	0	35	14:45	274	931	195	762	0	0	0	0	1693
3:00	2		1		0		0			15:00	328		317		0		0		
3:15	0		5		0		0			15:15	271		248		0		0		
3:30	3		8		0		0			15:30	252		221		0		0		
3:45	1	6	15	29	0	0	0	0	35	15:45	275	1126	227	1013	0	0	0	0	2139
4:00	3		6		0		0			16:00	313		234		0		0		
4:15	7		17		0		0			16:15	297		215		0		0		
4:30	4		21		0		0			16:30	299		209		0		0		
4:45	12	26	35	79	0	0	0	0	105	16:45	346	1255	240	898	0	0	0	0	2153
5:00	10		27		0		0			17:00	309		217		0		0		
5:15	7		36		0		0			17:15	373		226		0		0		
5:30	16		54		0		0			17:30	354		215		0		0		
5:45	21	54	72	189	0	0	0	0	243	17:45	263	1299	185	843	0	0	0	0	2142
6:00	24		60		0		0			18:00	290		148		0		0		
6:15	43		83		0		0			18:15	241		138		0		0		
6:30	47		149		0		0			18:30	225		141		0		0		
6:45	74	188	153	445	0	0	0	0	633	18:45	243	999	127	554	0	0	0	0	1553
7:00	97		160		0		0			19:00	190		146		0		0		
7:15	89		242		0		0			19:15	173		133		0		0		
7:30	148		257		0		0			19:30	180		121		0		0		
7:45	205	539	317	976	0	0	0	0	1515	19:45	193	736	118	518	0	0	0	0	1254
8:00	272		356		0		0			20:00	155		126		0		0		
8:15	121		270		0		0			20:15	147		122		0		0		
8:30	130		232		0		0			20:30	116		86		0		0		
8:45	132	655	242	1100	0	0	0	0	1755	20:45	93	511	83	417	0	0	0	0	928
9:00	110		174		0		0			21:00	106		66		0		0		
9:15	99		181		0		0			21:15	99		39		0		0		
9:30	142		212		0		0			21:30	76		49		0		0		
9:45	150	501	213	780	0	0	0	0	1281	21:45	87	368	45	199	0	0	0	0	567
10:00	120		187		0		0			22:00	72		46		0		0		
10:15	167		185		0		0			22:15	53		48		0		0		
10:30	171		206		0		0			22:30	59		29		0		0		
10:45	151	609	196	774	0	0	0	0	1383	22:45	37	221	21	144	0	0	0	0	365
11:00	170		194		0		0			23:00	42		11		0		0		
11:15	172		154		0		0			23:15	37		7		0		0		
11:30	171		195		0		0			23:30	26		13		0		0		
11:45	172	685	201	744	0	0	0	0	1429	23:45	22	127	15	46	0	0	0	0	173
Total Vol.		3356		5175					**8531**			9264		6913					**16177**

Daily Totals

NB	SB	EB	WB	**Combined**
12620	12088			**24708**

	AM				**PM**			
Split %	39.3%	60.7%		**34.5%**	57.3%	42.7%		**65.5%**
Peak Hour	11:45	7:30		**7:30**	16:45	15:00		**16:45**
Volume	808	1200		**1946**	1382	1013		**2280**
P.H.F.	0.92	0.84		**0.77**	0.94	0.80		**0.95**

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Volumes for: Wednesday, April 06, 2016 **CITY:** San Luis Obis **PROJECT:** SC0843

Location: **ADT97 Los Osos between Prefumo and Oceanaire, Lat: 35°15'38.36"N; Long: 120°41'41.72"W**

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: **Sunny**

DAY 2

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	17		6		0		0			12:00	252		190		0		0		
0:15	19		8		0		0			12:15	208		187		0		0		
0:30	20		9		0		0			12:30	227		191		0		0		
0:45	11	67	11	34	0	0	0	0	101	12:45	212	899	186	754	0	0	0	0	1653
1:00	8		4		0		0			13:00	199		175		0		0		
1:15	11		8		0		0			13:15	210		208		0		0		
1:30	8		2		0		0			13:30	238		176		0		0		
1:45	6	33	7	21	0	0	0	0	54	13:45	179	826	190	749	0	0	0	0	1575
2:00	8		7		0		0			14:00	228		182		0		0		
2:15	2		6		0		0			14:15	184		214		0		0		
2:30	4		2		0		0			14:30	253		192		0		0		
2:45	3	17	3	18	0	0	0	0	35	14:45	238	903	180	768	0	0	0	0	1671
3:00	3		3		0		0			15:00	311		337		0		0		
3:15	0		2		0		0			15:15	231		250		0		0		
3:30	4		7		0		0			15:30	273		185		0		0		
3:45	5	12	10	22	0	0	0	0	34	15:45	239	1054	244	1016	0	0	0	0	2070
4:00	1		8		0		0			16:00	279		222		0		0		
4:15	5		7		0		0			16:15	298		242		0		0		
4:30	4		15		0		0			16:30	305		240		0		0		
4:45	8	18	38	68	0	0	0	0	86	16:45	345	1227	263	967	0	0	0	0	2194
5:00	15		33		0		0			17:00	365		243		0		0		
5:15	16		33		0		0			17:15	365		244		0		0		
5:30	20		50		0		0			17:30	333		200		0		0		
5:45	15	66	87	203	0	0	0	0	269	17:45	312	1375	193	880	0	0	0	0	2255
6:00	43		54		0		0			18:00	274		173		0		0		
6:15	48		94		0		0			18:15	245		173		0		0		
6:30	55		131		0		0			18:30	223		153		0		0		
6:45	80	226	163	442	0	0	0	0	668	18:45	214	956	159	658	0	0	0	0	1614
7:00	88		145		0		0			19:00	194		125		0		0		
7:15	96		225		0		0			19:15	183		137		0		0		
7:30	169		279		0		0			19:30	152		85		0		0		
7:45	222	575	360	1009	0	0	0	0	1584	19:45	153	682	104	451	0	0	0	0	1133
8:00	286		370		0		0			20:00	126		81		0		0		
8:15	119		316		0		0			20:15	139		117		0		0		
8:30	145		252		0		0			20:30	142		78		0		0		
8:45	125	675	236	1174	0	0	0	0	1849	20:45	132	539	61	337	0	0	0	0	876
9:00	120		205		0		0			21:00	129		57		0		0		
9:15	143		190		0		0			21:15	94		61		0		0		
9:30	131		201		0		0			21:30	80		66		0		0		
9:45	141	535	241	837	0	0	0	0	1372	21:45	80	383	34	218	0	0	0	0	601
10:00	130		203		0		0			22:00	72		42		0		0		
10:15	145		163		0		0			22:15	52		38		0		0		
10:30	170		213		0		0			22:30	57		30		0		0		
10:45	162	607	168	747	0	0	0	0	1354	22:45	40	221	18	128	0	0	0	0	349
11:00	168		213		0		0			23:00	38		21		0		0		
11:15	197		207		0		0			23:15	34		15		0		0		
11:30	185		195		0		0			23:30	21		17		0		0		
11:45	191	741	206	821	0	0	0	0	1562	23:45	26	119	10	63	0	0	0	0	182
Total Vol.		3572		5396					**8968**			9184		6989					**16173**

Daily Totals

NB	SB	EB	Side	**Combined**
12756	12385			**25141**

	AM			**PM**		
Split %	39.8%	60.2%	**35.7%**	56.8%	43.2%	**64.3%**
Peak Hour	11:45	7:30	**7:30**	16:45	15:00	**16:30**
Volume	878	1325	**2121**	1408	1016	**2370**
P.H.F.	0.87	0.90	**0.81**	0.99	0.75	**0.97**

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Volumes for: Tuesday, April 05, 2016 & Wednesday, April 06, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT97 Los Osos between Prefumo and Oceanaire, Lat: 35°15'38.36"N; Long: 120°41'41.72"W

Prepared by AimTD LLC tel. 714 253 7888

2-DAY AVERAGE

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	16		6		0		0			12:00	234		195		0		0		
0:15	18		9		0		0			12:15	205		177		0		0		
0:30	16		7		0		0			12:30	223		186		0		0		
0:45	8	58	9	31	0	0	0	0	89	12:45	213	875	184	742	0	0	0	0	1617
1:00	8		5		0		0			13:00	209		181		0		0		
1:15	11		7		0		0			13:15	201		211		0		0		
1:30	5		5		0		0			13:30	225		183		0		0		
1:45	6	30	5	22	0	0	0	0	52	13:45	199	834	195	770	0	0	0	0	1604
2:00	8		4		0		0			14:00	219		181		0		0		
2:15	5		7		0		0			14:15	192		199		0		0		
2:30	3		2		0		0			14:30	251		198		0		0		
2:45	3	19	5	18	0	0	0	0	37	14:45	256	918	188	766	0	0	0	0	1684
3:00	3		2		0		0			15:00	320		327		0		0		
3:15	0		4		0		0			15:15	251		249		0		0		
3:30	4		8		0		0			15:30	263		203		0		0		
3:45	3	10	13	27	0	0	0	0	37	15:45	257	1091	236	1015	0	0	0	0	2106
4:00	2		7		0		0			16:00	296		228		0		0		
4:15	6		12		0		0			16:15	298		229		0		0		
4:30	4		18		0		0			16:30	302		225		0		0		
4:45	10	22	37	74	0	0	0	0	96	16:45	346	1242	252	934	0	0	0	0	2176
5:00	13		30		0		0			17:00	337		230		0		0		
5:15	12		35		0		0			17:15	369		235		0		0		
5:30	18		52		0		0			17:30	344		208		0		0		
5:45	18	61	80	197	0	0	0	0	258	17:45	288	1338	189	862	0	0	0	0	2200
6:00	34		57		0		0			18:00	282		161		0		0		
6:15	46		89		0		0			18:15	243		156		0		0		
6:30	51		140		0		0			18:30	224		147		0		0		
6:45	77	208	158	444	0	0	0	0	652	18:45	229	978	143	607	0	0	0	0	1585
7:00	93		153		0		0			19:00	192		136		0		0		
7:15	93		234		0		0			19:15	178		135		0		0		
7:30	159		268		0		0			19:30	166		103		0		0		
7:45	214	559	339	994	0	0	0	0	1553	19:45	173	709	111	485	0	0	0	0	1194
8:00	279		363		0		0			20:00	141		104		0		0		
8:15	120		293		0		0			20:15	143		120		0		0		
8:30	138		242		0		0			20:30	129		82		0		0		
8:45	129	666	239	1137	0	0	0	0	1803	20:45	113	526	72	378	0	0	0	0	904
9:00	115		190		0		0			21:00	118		62		0		0		
9:15	121		186		0		0			21:15	97		50		0		0		
9:30	137		207		0		0			21:30	78		58		0		0		
9:45	146	519	227	810	0	0	0	0	1329	21:45	84	377	40	210	0	0	0	0	587
10:00	125		195		0		0			22:00	72		44		0		0		
10:15	156		174		0		0			22:15	53		43		0		0		
10:30	171		210		0		0			22:30	58		30		0		0		
10:45	157	609	182	761	0	0	0	0	1370	22:45	39	222	20	137	0	0	0	0	359
11:00	169		204		0		0			23:00	40		16		0		0		
11:15	185		181		0		0			23:15	36		11		0		0		
11:30	178		195		0		0			23:30	24		15		0		0		
11:45	182	714	204	784	0	0	0	0	1498	23:45	24	124	13	55	0	0	0	0	179
Total Vol.		3475		5299					**8774**			9234		6961					**16195**

Daily Totals

NB	SB	EB	WB	Combined
12709	12260			**24969**

	AM			PM		
Split %	39.6%	60.4%	**35.1%**	57.0%	43.0%	**64.9%**
Peak Hour	11:45	7:30	**7:30**	16:45	15:00	**16:45**
Volume	844	1263	**2035**	1396	1015	**2321**
P.H.F.	0.90	0.87	**0.79**	0.96	0.78	**0.96**

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Volumes for: Tuesday, April 05, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT100 Los Osos between Madonna and Froom, Lat: 35°15'11.90"N; Long: 120°41'17.53"W

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 1

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	16		4		0		0			12:00	272		258		0		0		
0:15	15		11		0		0			12:15	261		256		0		0		
0:30	11		6		0		0			12:30	298		248		0		0		
0:45	8	50	6	27	0	0	0	0	77	12:45	302	1133	224	986	0	0	0	0	2119
1:00	5		5		0		0			13:00	284		200		0		0		
1:15	12		7		0		0			13:15	260		214		0		0		
1:30	7		6		0		0			13:30	292		217		0		0		
1:45	2	26	1	19	0	0	0	0	45	13:45	242	1078	192	823	0	0	0	0	1901
2:00	9		1		0		0			14:00	267		196		0		0		
2:15	7		4		0		0			14:15	259		174		0		0		
2:30	4		2		0		0			14:30	305		207		0		0		
2:45	1	21	3	10	0	0	0	0	31	14:45	269	1100	204	781	0	0	0	0	1881
3:00	3		3		0		0			15:00	288		213		0		0		
3:15	2		3		0		0			15:15	250		280		0		0		
3:30	0		7		0		0			15:30	293		230		0		0		
3:45	2	7	20	33	0	0	0	0	40	15:45	319	1150	235	958	0	0	0	0	2108
4:00	7		9		0		0			16:00	338		223		0		0		
4:15	5		19		0		0			16:15	341		259		0		0		
4:30	6		29		0		0			16:30	347		230		0		0		
4:45	13	31	36	93	0	0	0	0	124	16:45	365	1391	206	918	0	0	0	0	2309
5:00	7		34		0		0			17:00	364		190		0		0		
5:15	5		42		0		0			17:15	399		205		0		0		
5:30	9		38		0		0			17:30	424		201		0		0		
5:45	25	46	67	181	0	0	0	0	227	17:45	303	1490	180	776	0	0	0	0	2266
6:00	41		61		0		0			18:00	287		147		0		0		
6:15	52		62		0		0			18:15	278		150		0		0		
6:30	35		128		0		0			18:30	231		131		0		0		
6:45	75	203	119	370	0	0	0	0	573	18:45	251	1047	117	545	0	0	0	0	1592
7:00	76		137		0		0			19:00	226		117		0		0		
7:15	84		169		0		0			19:15	205		161		0		0		
7:30	150		185		0		0			19:30	205		131		0		0		
7:45	180	490	239	730	0	0	0	0	1220	19:45	198	834	129	538	0	0	0	0	1372
8:00	168		217		0		0			20:00	186		130		0		0		
8:15	122		234		0		0			20:15	151		105		0		0		
8:30	146		218		0		0			20:30	125		83		0		0		
8:45	140	576	202	871	0	0	0	0	1447	20:45	130	592	82	400	0	0	0	0	992
9:00	126		182		0		0			21:00	94		68		0		0		
9:15	138		162		0		0			21:15	104		55		0		0		
9:30	138		197		0		0			21:30	72		38		0		0		
9:45	190	592	165	706	0	0	0	0	1298	21:45	90	360	40	201	0	0	0	0	561
10:00	167		160		0		0			22:00	90		33		0		0		
10:15	185		173		0		0			22:15	56		38		0		0		
10:30	192		176		0		0			22:30	60		24		0		0		
10:45	207	751	165	674	0	0	0	0	1425	22:45	48	254	20	115	0	0	0	0	369
11:00	203		218		0		0			23:00	40		13		0		0		
11:15	232		211		0		0			23:15	34		13		0		0		
11:30	239		224		0		0			23:30	23		16		0		0		
11:45	250	924	241	894	0	0	0	0	1818	23:45	22	119	14	56	0	0	0	0	175
Total Vol.		3717		4608					**8325**			10548		7097					**17645**

Daily Totals

NB	SB	EB	WB	**Combined**
14265	11705			**25970**

	AM				**PM**				
Split %	44.6%	55.4%		**32.1%**	59.8%	40.2%			**67.9%**
Peak Hour	11:45	11:45		**11:45**	16:45	12:00			**16:45**
Volume	1081	1003		**2084**	1552	986			**2354**
P.H.F.	0.91	0.97		**0.95**	0.96	0.96			**0.94**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: Wednesday, April 06, 2016 **CITY:** San Luis Obis **PROJECT:** SC0843

Location: **ADT100 Los Osos between Madonna and Froom, Lat: 35°15'11.90"N; Long: 120°41'17.53"W** **Prepared by AimTD LLC tel. 714 253 7888**

Weather conditions: **Sunny**

DAY 2

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	17		10		0		0			12:00	294		206		0		0		
0:15	15		6		0		0			12:15	288		187		0		0		
0:30	17		12		0		0			12:30	272		216		0		0		
0:45	9	58	7	35	0	0	0	0	93	12:45	268	1122	214	823	0	0	0	0	1945
1:00	8		4		0		0			13:00	283		198		0		0		
1:15	12		8		0		0			13:15	251		219		0		0		
1:30	12		2		0		0			13:30	246		193		0		0		
1:45	2	34	7	21	0	0	0	0	55	13:45	239	1019	199	809	0	0	0	0	1828
2:00	6		3		0		0			14:00	266		212		0		0		
2:15	2		5		0		0			14:15	261		198		0		0		
2:30	2		1		0		0			14:30	316		204		0		0		
2:45	1	11	4	13	0	0	0	0	24	14:45	287	1130	189	803	0	0	0	0	1933
3:00	3		5		0		0			15:00	275		247		0		0		
3:15	2		2		0		0			15:15	268		224		0		0		
3:30	5		5		0		0			15:30	298		172		0		0		
3:45	4	14	10	22	0	0	0	0	36	15:45	321	1162	215	858	0	0	0	0	2020
4:00	3		9		0		0			16:00	323		206		0		0		
4:15	5		8		0		0			16:15	318		206		0		0		
4:30	5		14		0		0			16:30	359		218		0		0		
4:45	11	24	44	75	0	0	0	0	99	16:45	355	1355	214	844	0	0	0	0	2199
5:00	13		29		0		0			17:00	385		202		0		0		
5:15	11		40		0		0			17:15	399		218		0		0		
5:30	14		46		0		0			17:30	375		184		0		0		
5:45	20	58	77	192	0	0	0	0	250	17:45	312	1471	192	796	0	0	0	0	2267
6:00	42		59		0		0			18:00	284		148		0		0		
6:15	40		82		0		0			18:15	269		150		0		0		
6:30	48		122		0		0			18:30	257		178		0		0		
6:45	68	198	148	411	0	0	0	0	609	18:45	202	1012	154	630	0	0	0	0	1642
7:00	79		114		0		0			19:00	203		126		0		0		
7:15	100		176		0		0			19:15	196		144		0		0		
7:30	126		193		0		0			19:30	208		101		0		0		
7:45	145	450	201	684	0	0	0	0	1134	19:45	177	784	92	463	0	0	0	0	1247
8:00	143		226		0		0			20:00	156		106		0		0		
8:15	120		212		0		0			20:15	135		108		0		0		
8:30	125		229		0		0			20:30	149		75		0		0		
8:45	128	516	200	867	0	0	0	0	1383	20:45	152	592	74	363	0	0	0	0	955
9:00	126		210		0		0			21:00	102		60		0		0		
9:15	159		141		0		0			21:15	92		49		0		0		
9:30	154		186		0		0			21:30	92		52		0		0		
9:45	176	615	196	733	0	0	0	0	1348	21:45	65	351	29	190	0	0	0	0	541
10:00	144		168		0		0			22:00	69		36		0		0		
10:15	194		146		0		0			22:15	53		20		0		0		
10:30	201		171		0		0			22:30	49		28		0		0		
10:45	212	751	215	700	0	0	0	0	1451	22:45	36	207	16	100	0	0	0	0	307
11:00	194		226		0		0			23:00	35		16		0		0		
11:15	230		165		0		0			23:15	26		12		0		0		
11:30	271		212		0		0			23:30	25		5		0		0		
11:45	245	940	213	816	0	0	0	0	1756	23:45	24	110	15	48	0	0	0	0	158
Total Vol.		3669		4569					**8238**			10315		6727					**17042**

Daily Totals

NB	SB	EB	Side	**Combined**
13984	11296			**25280**

	AM			**PM**		
Split %	44.5%	55.5%	**32.6%**	60.5%	39.5%	**67.4%**
Peak Hour	11:45	7:45	**11:45**	16:45	14:30	**16:30**
Volume	1099	868	**1921**	1514	864	**2350**
P.H.F.	0.93	0.95	**0.96**	0.96	0.87	**0.95**

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Volumes for: Tuesday, April 05, 2016 & Wednesday, April 06, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: **ADT100 Los Osos between Madonna and Froom, Lat: 35°15'11.90"N; Long: 120°41'17.53"W**

Prepared by AimTD LLC tel. 714 253 7888

2-DAY AVERAGE

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	17		7		0		0			12:00	283		232		0		0		
0:15	15		9		0		0			12:15	275		222		0		0		
0:30	14		9		0		0			12:30	285		232		0		0		
0:45	9	55	7	32	0	0	0	0	87	12:45	285	1128	219	905	0	0	0	0	2033
1:00	7		5		0		0			13:00	284		199		0		0		
1:15	12		8		0		0			13:15	256		217		0		0		
1:30	10		4		0		0			13:30	269		205		0		0		
1:45	2	31	4	21	0	0	0	0	52	13:45	241	1050	196	817	0	0	0	0	1867
2:00	8		2		0		0			14:00	267		204		0		0		
2:15	5		5		0		0			14:15	260		186		0		0		
2:30	3		2		0		0			14:30	311		206		0		0		
2:45	1	17	4	13	0	0	0	0	30	14:45	278	1116	197	793	0	0	0	0	1909
3:00	3		4		0		0			15:00	282		230		0		0		
3:15	2		3		0		0			15:15	259		252		0		0		
3:30	3		6		0		0			15:30	296		201		0		0		
3:45	3	11	15	28	0	0	0	0	39	15:45	320	1157	225	908	0	0	0	0	2065
4:00	5		9		0		0			16:00	331		215		0		0		
4:15	5		14		0		0			16:15	330		233		0		0		
4:30	6		22		0		0			16:30	353		224		0		0		
4:45	12	28	40	85	0	0	0	0	113	16:45	360	1374	210	882	0	0	0	0	2256
5:00	10		32		0		0			17:00	375		196		0		0		
5:15	8		41		0		0			17:15	399		212		0		0		
5:30	12		42		0		0			17:30	400		193		0		0		
5:45	23	53	72	187	0	0	0	0	240	17:45	308	1482	186	787	0	0	0	0	2269
6:00	42		60		0		0			18:00	286		148		0		0		
6:15	46		72		0		0			18:15	274		150		0		0		
6:30	42		125		0		0			18:30	244		155		0		0		
6:45	72	202	134	391	0	0	0	0	593	18:45	227	1031	136	589	0	0	0	0	1620
7:00	78		126		0		0			19:00	215		122		0		0		
7:15	92		173		0		0			19:15	201		153		0		0		
7:30	138		189		0		0			19:30	207		116		0		0		
7:45	163	471	220	708	0	0	0	0	1179	19:45	188	811	111	502	0	0	0	0	1313
8:00	156		222		0		0			20:00	171		118		0		0		
8:15	121		223		0		0			20:15	143		107		0		0		
8:30	136		224		0		0			20:30	137		79		0		0		
8:45	134	547	201	870	0	0	0	0	1417	20:45	141	592	78	382	0	0	0	0	974
9:00	126		196		0		0			21:00	98		64		0		0		
9:15	149		152		0		0			21:15	98		52		0		0		
9:30	146		192		0		0			21:30	82		45		0		0		
9:45	183	604	181	721	0	0	0	0	1325	21:45	78	356	35	196	0	0	0	0	552
10:00	156		164		0		0			22:00	80		35		0		0		
10:15	190		160		0		0			22:15	55		29		0		0		
10:30	197		174		0		0			22:30	55		26		0		0		
10:45	210	753	190	688	0	0	0	0	1441	22:45	42	232	18	108	0	0	0	0	340
11:00	199		222		0		0			23:00	38		15		0		0		
11:15	231		188		0		0			23:15	30		13		0		0		
11:30	255		218		0		0			23:30	24		11		0		0		
11:45	248	933	227	855	0	0	0	0	1788	23:45	23	115	15	54	0	0	0	0	169
Total Vol.		3705		4599					**8304**			10444		6923					**17367**

Daily Totals

NB	SB	EB	WB	**Combined**
14149	11522			**25671**

	AM				**PM**			
Split %	44.6%	55.4%	**32.3%**		60.1%	39.9%		**67.7%**
Peak Hour	11:45	11:45	**11:45**		16:45	15:00		**16:45**
Volume	1091	913	**2004**		1534	908		**2345**
P.H.F.	0.96	0.98	**0.97**		0.96	0.90		**0.96**

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Volumes for: Wednesday, March 16, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT101 Los Osos between Froom and Calle Joaquin, Lat: 35°14'49.98"N; Long: 120°40'59.60"W

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 1

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	7		4		0		0			12:00	335		287		0		0		
0:15	6		5		0		0			12:15	331		265		0		0		
0:30	3		7		0		0			12:30	311		266		0		0		
0:45	3	19	8	24	0	0	0	0	43	12:45	310	1287	289	1107	0	0	0	0	2394
1:00	7		1		0		0			13:00	316		264		0		0		
1:15	9		8		0		0			13:15	283		317		0		0		
1:30	5		4		0		0			13:30	332		285		0		0		
1:45	4	25	8	21	0	0	0	0	46	13:45	462	1393	430	1296	0	0	0	0	2689
2:00	3		8		0		0			14:00	319		302		0		0		
2:15	9		5		0		0			14:15	322		318		0		0		
2:30	12		8		0		0			14:30	379		316		0		0		
2:45	26	50	11	32	0	0	0	0	82	14:45	355	1375	329	1265	0	0	0	0	2640
3:00	7		4		0		0			15:00	345		328		0		0		
3:15	9		14		0		0			15:15	308		293		0		0		
3:30	14		21		0		0			15:30	362		295		0		0		
3:45	36	66	32	71	0	0	0	0	137	15:45	360	1375	325	1241	0	0	0	0	2616
4:00	14		35		0		0			16:00	417		345		0		0		
4:15	23		39		0		0			16:15	398		337		0		0		
4:30	36		61		0		0			16:30	300		305		0		0		
4:45	35	108	75	210	0	0	0	0	318	16:45	301	1416	262	1249	0	0	0	0	2665
5:00	42		74		0		0			17:00	312		264		0		0		
5:15	73		81		0		0			17:15	288		247		0		0		
5:30	86		140		0		0			17:30	269		254		0		0		
5:45	116	317	138	433	0	0	0	0	750	17:45	203	1072	170	935	0	0	0	0	2007
6:00	129		152		0		0			18:00	210		191		0		0		
6:15	126		158		0		0			18:15	202		219		0		0		
6:30	177		200		0		0			18:30	219		170		0		0		
6:45	281	713	204	714	0	0	0	0	1427	18:45	139	770	201	781	0	0	0	0	1551
7:00	184		252		0		0			19:00	159		154		0		0		
7:15	219		207		0		0			19:15	144		171		0		0		
7:30	163		227		0		0			19:30	125		104		0		0		
7:45	192	758	248	934	0	0	0	0	1692	19:45	97	525	100	529	0	0	0	0	1054
8:00	183		206		0		0			20:00	115		117		0		0		
8:15	193		185		0		0			20:15	101		74		0		0		
8:30	203		213		0		0			20:30	71		72		0		0		
8:45	220	799	208	812	0	0	0	0	1611	20:45	65	352	69	332	0	0	0	0	684
9:00	252		195		0		0			21:00	62		65		0		0		
9:15	281		214		0		0			21:15	51		35		0		0		
9:30	295		245		0		0			21:30	31		32		0		0		
9:45	253	1081	226	880	0	0	0	0	1961	21:45	27	171	36	168	0	0	0	0	339
10:00	325		228		0		0			22:00	28		38		0		0		
10:15	294		253		0		0			22:15	25		16		0		0		
10:30	345		270		0		0			22:30	33		10		0		0		
10:45	342	1306	247	998	0	0	0	0	2304	22:45	23	109	16	80	0	0	0	0	189
11:00	276		271		0		0			23:00	17		7		0		0		
11:15	297		242		0		0			23:15	25		8		0		0		
11:30	352		263		0		0			23:30	11		9		0		0		
11:45	340	1265	236	1012	0	0	0	0	2277	23:45	7	60	3	27	0	0	0	0	87
Total Vol.		6507		6141					**12648**			9905		9010					**18915**

Daily Totals

NB	SB	EB	WB	**Combined**
16412	15151			**31563**

	AM				**PM**				
Split %	51.4%	48.6%		**40.1%**	52.4%	47.6%			**59.9%**
Peak Hour	11:30	11:45		**11:30**	15:30	13:45			**13:45**
Volume	1358	1054		**2409**	1537	1366			**2848**
P.H.F.	0.96	0.92		**0.97**	0.93	0.79			**0.80**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: Thursday, March 17, 2016 **CITY:** San Luis Obis **PROJECT:** SC0843

Location: ADT101 Los Osos between Froom and Calle Joaquin, Lat: 35°14'49.98"N; Long: 120°40'59.60"W

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 2

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	7		8		0		0			12:00	291		293		0		0		
0:15	11		4		0		0			12:15	294		242		0		0		
0:30	4		3		0		0			12:30	284		254		0		0		
0:45	7	29	4	19	0	0	0	0	48	12:45	300	1169	258	1047	0	0	0	0	2216
1:00	6		6		0		0			13:00	305		264		0		0		
1:15	3		7		0		0			13:15	308		260		0		0		
1:30	3		3		0		0			13:30	285		279		0		0		
1:45	8	20	8	24	0	0	0	0	44	13:45	297	1195	328	1131	0	0	0	0	2326
2:00	5		2		0		0			14:00	303		288		0		0		
2:15	3		7		0		0			14:15	328		301		0		0		
2:30	12		9		0		0			14:30	345		292		0		0		
2:45	25	45	17	35	0	0	0	0	80	14:45	322	1298	317	1198	0	0	0	0	2496
3:00	6		10		0		0			15:00	349		308		0		0		
3:15	14		8		0		0			15:15	351		293		0		0		
3:30	17		22		0		0			15:30	332		341		0		0		
3:45	33	70	21	61	0	0	0	0	131	15:45	347	1379	328	1270	0	0	0	0	2649
4:00	19		32		0		0			16:00	425		310		0		0		
4:15	24		45		0		0			16:15	351		279		0		0		
4:30	32		50		0		0			16:30	336		295		0		0		
4:45	56	131	69	196	0	0	0	0	327	16:45	335	1447	262	1146	0	0	0	0	2593
5:00	49		75		0		0			17:00	253		277		0		0		
5:15	68		108		0		0			17:15	244		226		0		0		
5:30	87		135		0		0			17:30	202		206		0		0		
5:45	115	319	149	467	0	0	0	0	786	17:45	212	911	198	907	0	0	0	0	1818
6:00	128		139		0		0			18:00	213		202		0		0		
6:15	128		167		0		0			18:15	208		190		0		0		
6:30	193		205		0		0			18:30	160		156		0		0		
6:45	268	717	212	723	0	0	0	0	1440	18:45	156	737	168	716	0	0	0	0	1453
7:00	206		234		0		0			19:00	151		154		0		0		
7:15	208		237		0		0			19:15	128		132		0		0		
7:30	167		206		0		0			19:30	110		118		0		0		
7:45	217	798	217	894	0	0	0	0	1692	19:45	89	478	93	497	0	0	0	0	975
8:00	202		173		0		0			20:00	94		86		0		0		
8:15	230		188		0		0			20:15	107		80		0		0		
8:30	239		204		0		0			20:30	91		87		0		0		
8:45	263	934	170	735	0	0	0	0	1669	20:45	63	355	87	340	0	0	0	0	695
9:00	227		149		0		0			21:00	63		59		0		0		
9:15	288		207		0		0			21:15	53		46		0		0		
9:30	305		231		0		0			21:30	45		38		0		0		
9:45	267	1087	175	762	0	0	0	0	1849	21:45	31	192	34	177	0	0	0	0	369
10:00	326		212		0		0			22:00	27		36		0		0		
10:15	275		200		0		0			22:15	24		25		0		0		
10:30	332		209		0		0			22:30	26		14		0		0		
10:45	317	1250	209	830	0	0	0	0	2080	22:45	21	98	18	93	0	0	0	0	191
11:00	324		231		0		0			23:00	19		12		0		0		
11:15	335		249		0		0			23:15	22		10		0		0		
11:30	338		255		0		0			23:30	15		7		0		0		
11:45	296	1293	265	1000	0	0	0	0	2293	23:45	9	65	3	32	0	0	0	0	97
Total Vol.		6693		5746					**12439**			9324		8554					**17878**

Daily Totals

NB	SB	EB	Side	**Combined**
16017	14300			**30317**

	AM			**PM**		
Split %	53.8%	46.2%	**41.0%**	52.2%	47.8%	**59.0%**
Peak Hour	10:45	11:15	**11:15**	15:45	15:15	**15:15**
Volume	1314	1062	**2322**	1459	1272	**2727**
P.H.F.	0.97	0.91	**0.98**	0.87	0.93	**0.93**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: Wednesday, March 16, 2016 & Thursday, March 17, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT101 Los Osos between Froom and Calle Joaquin, Lat: 35°14'49.98"N; Long: 120°40'59.60"W

Prepared by AimTD LLC tel. 714 253 7888

2-DAY AVERAGE

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	7		6		0		0			12:00	313		290		0		0		
0:15	9		5		0		0			12:15	313		254		0		0		
0:30	4		5		0		0			12:30	298		260		0		0		
0:45	5	25	6	22	0	0	0	0	47	12:45	305	1229	274	1078	0	0	0	0	2307
1:00	7		4		0		0			13:00	311		264		0		0		
1:15	6		8		0		0			13:15	296		289		0		0		
1:30	4		4		0		0			13:30	309		282		0		0		
1:45	6	23	8	24	0	0	0	0	47	13:45	380	1296	379	1214	0	0	0	0	2510
2:00	4		5		0		0			14:00	311		295		0		0		
2:15	6		6		0		0			14:15	325		310		0		0		
2:30	12		9		0		0			14:30	362		304		0		0		
2:45	26	48	14	34	0	0	0	0	82	14:45	339	1337	323	1232	0	0	0	0	2569
3:00	7		7		0		0			15:00	347		318		0		0		
3:15	12		11		0		0			15:15	330		293		0		0		
3:30	16		22		0		0			15:30	347		318		0		0		
3:45	35	70	27	67	0	0	0	0	137	15:45	354	1378	327	1256	0	0	0	0	2634
4:00	17		34		0		0			16:00	421		328		0		0		
4:15	24		42		0		0			16:15	375		308		0		0		
4:30	34		56		0		0			16:30	318		300		0		0		
4:45	46	121	72	204	0	0	0	0	325	16:45	318	1432	262	1198	0	0	0	0	2630
5:00	46		75		0		0			17:00	283		271		0		0		
5:15	71		95		0		0			17:15	266		237		0		0		
5:30	87		138		0		0			17:30	236		230		0		0		
5:45	116	320	144	452	0	0	0	0	772	17:45	208	993	184	922	0	0	0	0	1915
6:00	129		146		0		0			18:00	212		197		0		0		
6:15	127		163		0		0			18:15	205		205		0		0		
6:30	185		203		0		0			18:30	190		163		0		0		
6:45	275	716	208	720	0	0	0	0	1436	18:45	148	755	185	750	0	0	0	0	1505
7:00	195		243		0		0			19:00	155		154		0		0		
7:15	214		222		0		0			19:15	136		152		0		0		
7:30	165		217		0		0			19:30	118		111		0		0		
7:45	205	779	233	915	0	0	0	0	1694	19:45	93	502	97	514	0	0	0	0	1016
8:00	193		190		0		0			20:00	105		102		0		0		
8:15	212		187		0		0			20:15	104		77		0		0		
8:30	221		209		0		0			20:30	81		80		0		0		
8:45	242	868	189	775	0	0	0	0	1643	20:45	64	354	78	337	0	0	0	0	691
9:00	240		172		0		0			21:00	63		62		0		0		
9:15	285		211		0		0			21:15	52		41		0		0		
9:30	300		238		0		0			21:30	38		35		0		0		
9:45	260	1085	201	822	0	0	0	0	1907	21:45	29	182	35	173	0	0	0	0	355
10:00	326		220		0		0			22:00	28		37		0		0		
10:15	285		227		0		0			22:15	25		21		0		0		
10:30	339		240		0		0			22:30	30		12		0		0		
10:45	330	1280	228	915	0	0	0	0	2195	22:45	22	105	17	87	0	0	0	0	192
11:00	300		251		0		0			23:00	18		10		0		0		
11:15	316		246		0		0			23:15	24		9		0		0		
11:30	345		259		0		0			23:30	13		8		0		0		
11:45	318	1279	251	1007	0	0	0	0	2286	23:45	8	63	3	30	0	0	0	0	93
Total Vol.		6614		5957					**12571**			9626		8791					**18417**

Daily Totals

NB	SB	EB	WB	**Combined**
16240	14748			**30988**

	AM				**PM**		
Split %	52.6%	47.4%	**40.6%**		52.3%	47.7%	**59.4%**
Peak Hour	11:15	11:45	**11:30**		15:30	13:45	**15:30**
Volume	1292	1055	**2343**		1497	1288	**2778**
P.H.F.	0.94	0.91	**0.97**		0.92	0.85	**0.93**

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Volumes for: Wednesday, February 03, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT79 Higuera between LOVR and City Line, Lat: 35°14'29.45"N; Long: 120°40'37.23"W **Prepared by AimTD LLC tel. 714 253 7888**

Weather conditions: Sunny

DAY 1

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	2		4		0		0			12:00	49		84		0		0		
0:15	3		1		0		0			12:15	47		73		0		0		
0:30	3		4		0		0			12:30	71		52		0		0		
0:45	4	12	4	13	0	0	0	0	25	12:45	60	227	66	275	0	0	0	0	502
1:00	2		2		0		0			13:00	67		70		0		0		
1:15	4		5		0		0			13:15	54		78		0		0		
1:30	5		12		0		0			13:30	39		68		0		0		
1:45	4	15	15	34	0	0	0	0	49	13:45	61	221	72	288	0	0	0	0	509
2:00	6		4		0		0			14:00	41		77		0		0		
2:15	2		3		0		0			14:15	61		95		0		0		
2:30	2		4		0		0			14:30	63		88		0		0		
2:45	3	13	4	15	0	0	0	0	28	14:45	61	226	113	373	0	0	0	0	599
3:00	3		3		0		0			15:00	72		94		0		0		
3:15	1		2		0		0			15:15	67		94		0		0		
3:30	1		3		0		0			15:30	82		131		0		0		
3:45	5	10	4	12	0	0	0	0	22	15:45	57	278	127	446	0	0	0	0	724
4:00	0		7		0		0			16:00	71		132		0		0		
4:15	6		0		0		0			16:15	35		110		0		0		
4:30	9		9		0		0			16:30	61		133		0		0		
4:45	11	26	7	23	0	0	0	0	49	16:45	71	238	123	498	0	0	0	0	736
5:00	4		14		0		0			17:00	56		149		0		0		
5:15	6		16		0		0			17:15	58		133		0		0		
5:30	10		23		0		0			17:30	50		115		0		0		
5:45	38	58	24	77	0	0	0	0	135	17:45	59	223	102	499	0	0	0	0	722
6:00	21		22		0		0			18:00	33		80		0		0		
6:15	36		31		0		0			18:15	43		76		0		0		
6:30	54		25		0		0			18:30	17		74		0		0		
6:45	67	178	41	119	0	0	0	0	297	18:45	22	115	60	290	0	0	0	0	405
7:00	54		37		0		0			19:00	12		53		0		0		
7:15	53		42		0		0			19:15	14		38		0		0		
7:30	81		48		0		0			19:30	22		48		0		0		
7:45	76	264	42	169	0	0	0	0	433	19:45	15	63	32	171	0	0	0	0	234
8:00	98		64		0		0			20:00	15		40		0		0		
8:15	90		76		0		0			20:15	10		29		0		0		
8:30	104		91		0		0			20:30	14		23		0		0		
8:45	82	374	59	290	0	0	0	0	664	20:45	8	47	25	117	0	0	0	0	164
9:00	67		80		0		0			21:00	17		27		0		0		
9:15	52		64		0		0			21:15	17		25		0		0		
9:30	36		62		0		0			21:30	7		22		0		0		
9:45	53	208	52	258	0	0	0	0	466	21:45	5	46	20	94	0	0	0	0	140
10:00	53		73		0		0			22:00	12		12		0		0		
10:15	35		65		0		0			22:15	7		8		0		0		
10:30	56		68		0		0			22:30	4		14		0		0		
10:45	57	201	67	273	0	0	0	0	474	22:45	4	27	12	46	0	0	0	0	73
11:00	51		78		0		0			23:00	8		8		0		0		
11:15	67		60		0		0			23:15	3		7		0		0		
11:30	74		78		0		0			23:30	14		38		0		0		
11:45	64	256	56	272	0	0	0	0	528	23:45	1	26	3	56	0	0	0	0	82
Total Vol.		1615		1555					**3170**			1737		3153					**4890**

Daily Totals

NB	SB	EB	WB	**Combined**
3352	4708			**8060**

	AM			**PM**		
Split %	50.9%	49.1%	**39.3%**	35.5%	64.5%	**60.7%**
Peak Hour	8:00	8:15	**8:00**	14:45	16:30	**16:30**
Volume	374	306	**664**	282	538	**784**
P.H.F.	0.90	0.84	**0.85**	0.93	0.90	**0.96**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: Thursday, February 04, 2016 **CITY:** San Luis Obis **PROJECT:** SC0843

Location: ADT79 Higuera between LOVR and City Line, Lat: 35°14'29.45"N; Long: 120°40'37.23"W **Prepared by AimTD LLC tel. 714 253 7888**

Weather conditions: Sunny

DAY 2

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	5		3		0		0			12:00	51		81		0		0		
0:15	2		1		0		0			12:15	66		85		0		0		
0:30	0		8		0		0			12:30	56		76		0		0		
0:45	4	11	5	17	0	0	0	0	28	12:45	55	228	85	327	0	0	0	0	555
1:00	2		2		0		0			13:00	73		84		0		0		
1:15	3		7		0		0			13:15	54		75		0		0		
1:30	4		7		0		0			13:30	59		99		0		0		
1:45	3	12	11	27	0	0	0	0	39	13:45	71	257	84	342	0	0	0	0	599
2:00	2		3		0		0			14:00	64		93		0		0		
2:15	2		2		0		0			14:15	47		99		0		0		
2:30	4		4		0		0			14:30	56		107		0		0		
2:45	3	11	2	11	0	0	0	0	22	14:45	68	235	105	404	0	0	0	0	639
3:00	2		3		0		0			15:00	64		109		0		0		
3:15	1		3		0		0			15:15	61		119		0		0		
3:30	2		1		0		0			15:30	83		148		0		0		
3:45	8	13	3	10	0	0	0	0	23	15:45	67	275	121	497	0	0	0	0	772
4:00	2		6		0		0			16:00	58		133		0		0		
4:15	5		2		0		0			16:15	78		147		0		0		
4:30	1		6		0		0			16:30	63		149		0		0		
4:45	13	21	9	23	0	0	0	0	44	16:45	63	262	124	553	0	0	0	0	815
5:00	3		7		0		0			17:00	48		157		0		0		
5:15	7		11		0		0			17:15	63		146		0		0		
5:30	9		21		0		0			17:30	57		152		0		0		
5:45	28	47	28	67	0	0	0	0	114	17:45	46	214	112	567	0	0	0	0	781
6:00	26		20		0		0			18:00	57		105		0		0		
6:15	38		24		0		0			18:15	40		71		0		0		
6:30	51		36		0		0			18:30	22		61		0		0		
6:45	69	184	35	115	0	0	0	0	299	18:45	22	141	61	298	0	0	0	0	439
7:00	43		38		0		0			19:00	21		42		0		0		
7:15	64		47		0		0			19:15	21		35		0		0		
7:30	103		63		0		0			19:30	21		42		0		0		
7:45	95	305	47	195	0	0	0	0	500	19:45	14	77	34	153	0	0	0	0	230
8:00	69		58		0		0			20:00	16		41		0		0		
8:15	99		81		0		0			20:15	13		32		0		0		
8:30	89		70		0		0			20:30	16		22		0		0		
8:45	102	359	87	296	0	0	0	0	655	20:45	10	55	33	128	0	0	0	0	183
9:00	45		60		0		0			21:00	9		29		0		0		
9:15	44		55		0		0			21:15	11		21		0		0		
9:30	44		70		0		0			21:30	10		18		0		0		
9:45	58	191	71	256	0	0	0	0	447	21:45	10	40	23	91	0	0	0	0	131
10:00	56		71		0		0			22:00	6		15		0		0		
10:15	57		70		0		0			22:15	6		7		0		0		
10:30	49		80		0		0			22:30	4		8		0		0		
10:45	54	216	72	293	0	0	0	0	509	22:45	4	20	10	40	0	0	0	0	60
11:00	60		63		0		0			23:00	6		5		0		0		
11:15	59		83		0		0			23:15	3		8		0		0		
11:30	65		73		0		0			23:30	4		7		0		0		
11:45	53	237	92	311	0	0	0	0	548	23:45	1	14	8	28	0	0	0	0	42
Total Vol.		1607		1621					**3228**			1818		3428					**5246**

Daily Totals

NB	SB	EB	Side	**Combined**
3425	5049			**8474**

	AM				**PM**			
Split %	49.8%	50.2%	**38.1%**		34.7%	65.3%		**61.9%**
Peak Hour	7:30	11:45	**8:00**		15:30	16:45		**15:30**
Volume	366	334	**655**		286	579		**835**
P.H.F.	0.89	0.91	**0.87**		0.80	0.92		**0.90**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: Wednesday, February 03, 2016 & Thursday, February 04, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: **ADT79 Higuera between LOVR and City Line, Lat: 35°14'29.45"N; Long: 120°40'37.23"W**

Prepared by AimTD LLC tel. 714 253 7888

2-DAY AVERAGE

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	4		4		0		0			12:00	50		83		0		0		
0:15	3		1		0		0			12:15	57		79		0		0		
0:30	2		6		0		0			12:30	64		64		0		0		
0:45	4	13	5	16	0	0	0	0	29	12:45	58	229	76	302	0	0	0	0	531
1:00	2		2		0		0			13:00	70		77		0		0		
1:15	4		6		0		0			13:15	54		77		0		0		
1:30	5		10		0		0			13:30	49		84		0		0		
1:45	4	15	13	31	0	0	0	0	46	13:45	66	239	78	316	0	0	0	0	555
2:00	4		4		0		0			14:00	53		85		0		0		
2:15	2		3		0		0			14:15	54		97		0		0		
2:30	3		4		0		0			14:30	60		98		0		0		
2:45	3	12	3	14	0	0	0	0	26	14:45	65	232	109	389	0	0	0	0	621
3:00	3		3		0		0			15:00	68		102		0		0		
3:15	1		3		0		0			15:15	64		107		0		0		
3:30	2		2		0		0			15:30	83		140		0		0		
3:45	7	13	4	12	0	0	0	0	25	15:45	62	277	124	473	0	0	0	0	750
4:00	1		7		0		0			16:00	65		133		0		0		
4:15	6		1		0		0			16:15	57		129		0		0		
4:30	5		8		0		0			16:30	62		141		0		0		
4:45	12	24	8	24	0	0	0	0	48	16:45	67	251	124	527	0	0	0	0	778
5:00	4		11		0		0			17:00	52		153		0		0		
5:15	7		14		0		0			17:15	61		140		0		0		
5:30	10		22		0		0			17:30	54		134		0		0		
5:45	33	54	26	73	0	0	0	0	127	17:45	53	220	107	534	0	0	0	0	754
6:00	24		21		0		0			18:00	45		93		0		0		
6:15	37		28		0		0			18:15	42		74		0		0		
6:30	53		31		0		0			18:30	20		68		0		0		
6:45	68	182	38	118	0	0	0	0	300	18:45	22	129	61	296	0	0	0	0	425
7:00	49		38		0		0			19:00	17		48		0		0		
7:15	59		45		0		0			19:15	18		37		0		0		
7:30	92		56		0		0			19:30	22		45		0		0		
7:45	86	286	45	184	0	0	0	0	470	19:45	15	72	33	163	0	0	0	0	235
8:00	84		61		0		0			20:00	16		41		0		0		
8:15	95		79		0		0			20:15	12		31		0		0		
8:30	97		81		0		0			20:30	15		23		0		0		
8:45	92	368	73	294	0	0	0	0	662	20:45	9	52	29	124	0	0	0	0	176
9:00	56		70		0		0			21:00	13		28		0		0		
9:15	48		60		0		0			21:15	14		23		0		0		
9:30	40		66		0		0			21:30	9		20		0		0		
9:45	56	200	62	258	0	0	0	0	458	21:45	8	44	22	93	0	0	0	0	137
10:00	55		72		0		0			22:00	9		14		0		0		
10:15	46		68		0		0			22:15	7		8		0		0		
10:30	53		74		0		0			22:30	4		11		0		0		
10:45	56	210	70	284	0	0	0	0	494	22:45	4	24	11	44	0	0	0	0	68
11:00	56		71		0		0			23:00	7		7		0		0		
11:15	63		72		0		0			23:15	3		8		0		0		
11:30	70		76		0		0			23:30	9		23		0		0		
11:45	59	248	74	293	0	0	0	0	541	23:45	1	20	6	44	0	0	0	0	64
Total Vol.		1625		1601					**3226**			1789		3305					**5094**

Daily Totals

NB	SB	EB	WB	**Combined**
3414	4906			**8320**

	AM				**PM**			
Split %	50.4%	49.6%	**38.8%**		35.1%	64.9%		**61.2%**
Peak Hour	8:00	11:30	**8:00**		14:45	16:30		**16:30**
Volume	368	312	**662**		280	558		**800**
P.H.F.	0.95	0.94	**0.93**		0.96	0.91		**0.98**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: ################## **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT76 Higuera between Granda and Tank Farm, Lat: 35°14'50.10"N; Long: 120°40'24.10"W

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 1

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	8		5		0		0			12:00	177		191		0		0		
0:15	12		5		0		0			12:15	183		198		0		0		
0:30	11		6		0		0			12:30	191		179		0		0		
0:45	2	33	4	20	0	0	0	0	53	12:45	200	751	190	758	0	0	0	0	1509
1:00	6		0		0		0			13:00	193		160		0		0		
1:15	7		4		0		0			13:15	172		174		0		0		
1:30	5		8		0		0			13:30	156		178		0		0		
1:45	8	26	12	24	0	0	0	0	50	13:45	187	708	169	681	0	0	0	0	1389
2:00	6		7		0		0			14:00	186		164		0		0		
2:15	3		3		0		0			14:15	158		161		0		0		
2:30	3		5		0		0			14:30	203		168		0		0		
2:45	1	13	5	20	0	0	0	0	33	14:45	165	712	160	653	0	0	0	0	1365
3:00	1		2		0		0			15:00	169		169		0		0		
3:15	1		4		0		0			15:15	217		175		0		0		
3:30	4		4		0		0			15:30	236		174		0		0		
3:45	8	14	7	17	0	0	0	0	31	15:45	240	862	200	718	0	0	0	0	1580
4:00	8		2		0		0			16:00	242		236		0		0		
4:15	2		4		0		0			16:15	238		235		0		0		
4:30	7		3		0		0			16:30	256		228		0		0		
4:45	4	21	11	20	0	0	0	0	41	16:45	281	1017	224	923	0	0	0	0	1940
5:00	10		7		0		0			17:00	318		283		0		0		
5:15	11		11		0		0			17:15	291		253		0		0		
5:30	16		11		0		0			17:30	230		167		0		0		
5:45	38	75	36	65	0	0	0	0	140	17:45	204	1043	141	844	0	0	0	0	1887
6:00	44		17		0		0			18:00	144		113		0		0		
6:15	45		35		0		0			18:15	146		107		0		0		
6:30	66		50		0		0			18:30	126		108		0		0		
6:45	74	229	78	180	0	0	0	0	409	18:45	89	505	85	413	0	0	0	0	918
7:00	81		77		0		0			19:00	67		60		0		0		
7:15	122		67		0		0			19:15	79		61		0		0		
7:30	145		98		0		0			19:30	66		70		0		0		
7:45	149	497	141	383	0	0	0	0	880	19:45	77	289	58	249	0	0	0	0	538
8:00	139		158		0		0			20:00	64		56		0		0		
8:15	154		144		0		0			20:15	66		52		0		0		
8:30	178		130		0		0			20:30	65		50		0		0		
8:45	153	624	136	568	0	0	0	0	1192	20:45	46	241	32	190	0	0	0	0	431
9:00	154		120		0		0			21:00	44		33		0		0		
9:15	125		117		0		0			21:15	58		35		0		0		
9:30	128		128		0		0			21:30	32		33		0		0		
9:45	148	555	136	501	0	0	0	0	1056	21:45	24	158	22	123	0	0	0	0	281
10:00	154		127		0		0			22:00	27		20		0		0		
10:15	140		133		0		0			22:15	15		14		0		0		
10:30	149		128		0		0			22:30	15		14		0		0		
10:45	155	598	166	554	0	0	0	0	1152	22:45	11	68	23	71	0	0	0	0	139
11:00	133		187		0		0			23:00	13		11		0		0		
11:15	165		155		0		0			23:15	19		5		0		0		
11:30	184		172		0		0			23:30	8		9		0		0		
11:45	184	666	166	680	0	0	0	0	1346	23:45	13	53	8	33	0	0	0	0	86
Total Vol.		3351		3032					**6383**			6407		5656					**12063**

Daily Totals

NB	SB	EB	WB	**Combined**
9758	8688			**18446**

	AM				**PM**			
Split %	52.5%	47.5%		**34.6%**	53.1%	46.9%		**65.4%**
Peak Hour	11:45	11:45		**11:45**	16:30	16:30		**16:30**
Volume	735	734		**1469**	1146	988		**2134**
P.H.F.	0.96	0.93		**0.96**	0.92	0.87		**0.89**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: Thursday, February 04, 2016 **CITY:** San Luis Obis **PROJECT:** SC0843

Location: ADT76 Higuera between Granda and Tank Farm, Lat: 35°14'50.10"N; Long: 120°40'24.10"W Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 2

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	10		5		0		0			12:00	193		188		0		0		
0:15	13		4		0		0			12:15	200		200		0		0		
0:30	11		8		0		0			12:30	208		183		0		0		
0:45	5	39	7	24	0	0	0	0	63	12:45	219	820	182	753	0	0	0	0	1573
1:00	11		1		0		0			13:00	211		170		0		0		
1:15	2		5		0		0			13:15	187		182		0		0		
1:30	5		5		0		0			13:30	173		187		0		0		
1:45	3	21	7	18	0	0	0	0	39	13:45	200	771	178	717	0	0	0	0	1488
2:00	4		4		0		0			14:00	203		173		0		0		
2:15	0		3		0		0			14:15	178		167		0		0		
2:30	4		4		0		0			14:30	217		178		0		0		
2:45	7	15	5	16	0	0	0	0	31	14:45	185	783	170	688	0	0	0	0	1471
3:00	1		8		0		0			15:00	186		178		0		0		
3:15	2		2		0		0			15:15	234		185		0		0		
3:30	3		3		0		0			15:30	248		179		0		0		
3:45	8	14	3	16	0	0	0	0	30	15:45	257	925	207	749	0	0	0	0	1674
4:00	1		5		0		0			16:00	242		214		0		0		
4:15	3		6		0		0			16:15	223		234		0		0		
4:30	9		5		0		0			16:30	227		212		0		0		
4:45	10	23	7	23	0	0	0	0	46	16:45	276	968	213	873	0	0	0	0	1841
5:00	7		14		0		0			17:00	251		251		0		0		
5:15	14		10		0		0			17:15	248		212		0		0		
5:30	27		15		0		0			17:30	224		162		0		0		
5:45	28	76	32	71	0	0	0	0	147	17:45	208	931	143	768	0	0	0	0	1699
6:00	39		20		0		0			18:00	162		122		0		0		
6:15	50		28		0		0			18:15	163		117		0		0		
6:30	60		52		0		0			18:30	140		114		0		0		
6:45	69	218	65	165	0	0	0	0	383	18:45	109	574	93	446	0	0	0	0	1020
7:00	109		70		0		0			19:00	87		70		0		0		
7:15	123		90		0		0			19:15	97		68		0		0		
7:30	151		119		0		0			19:30	85		80		0		0		
7:45	181	564	149	428	0	0	0	0	992	19:45	74	343	57	275	0	0	0	0	618
8:00	167		141		0		0			20:00	62		55		0		0		
8:15	148		122		0		0			20:15	64		52		0		0		
8:30	178		145		0		0			20:30	64		50		0		0		
8:45	160	653	126	534	0	0	0	0	1187	20:45	44	234	30	187	0	0	0	0	421
9:00	133		146		0		0			21:00	43		31		0		0		
9:15	169		126		0		0			21:15	56		34		0		0		
9:30	154		131		0		0			21:30	29		32		0		0		
9:45	160	616	134	537	0	0	0	0	1153	21:45	23	151	21	118	0	0	0	0	269
10:00	177		151		0		0			22:00	25		20		0		0		
10:15	158		143		0		0			22:15	13		14		0		0		
10:30	164		134		0		0			22:30	13		14		0		0		
10:45	175	674	176	604	0	0	0	0	1278	22:45	10	61	21	69	0	0	0	0	130
11:00	144		183		0		0			23:00	13		10		0		0		
11:15	175		156		0		0			23:15	18		4		0		0		
11:30	192		172		0		0			23:30	7		9		0		0		
11:45	195	706	161	672	0	0	0	0	1378	23:45	12	50	6	29	0	0	0	0	79
Total Vol.		3619		3108					**6727**			6611		5672					**12283**

Daily Totals

NB	SB	EB	Side	**Combined**
10230	8780			**19010**

	AM				**PM**			
Split %	53.8%	46.2%		**35.4%**	53.8%	46.2%		**64.6%**
Peak Hour	11:45	11:45		**11:45**	16:30	16:15		**16:30**
Volume	796	732		**1528**	1002	910		**1890**
P.H.F.	0.96	0.92		**0.96**	0.91	0.91		**0.94**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: Wednesday, February 03, 2016 & Thursday, February 04, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT76 Higuera between Granda and Tank Farm, Lat: 35°14'50.10"N; Long: 120°40'24.10"W

Prepared by AimTD LLC tel. 714 253 7888

2-DAY AVERAGE

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	9		5		0		0			12:00	185		190		0		0		
0:15	13		5		0		0			12:15	192		199		0		0		
0:30	11		7		0		0			12:30	200		181		0		0		
0:45	4	36	6	22	0	0	0	0	58	12:45	210	786	186	756	0	0	0	0	1541
1:00	9		1		0		0			13:00	202		165		0		0		
1:15	5		5		0		0			13:15	180		178		0		0		
1:30	5		7		0		0			13:30	165		183		0		0		
1:45	6	24	10	21	0	0	0	0	45	13:45	194	740	174	699	0	0	0	0	1439
2:00	5		6		0		0			14:00	195		169		0		0		
2:15	2		3		0		0			14:15	168		164		0		0		
2:30	4		5		0		0			14:30	210		173		0		0		
2:45	4	14	5	18	0	0	0	0	32	14:45	175	748	165	671	0	0	0	0	1418
3:00	1		5		0		0			15:00	178		174		0		0		
3:15	2		3		0		0			15:15	226		180		0		0		
3:30	4		4		0		0			15:30	242		177		0		0		
3:45	8	14	5	17	0	0	0	0	31	15:45	249	894	204	734	0	0	0	0	1627
4:00	5		4		0		0			16:00	242		225		0		0		
4:15	3		5		0		0			16:15	231		235		0		0		
4:30	8		4		0		0			16:30	242		220		0		0		
4:45	7	22	9	22	0	0	0	0	44	16:45	279	993	219	898	0	0	0	0	1891
5:00	9		11		0		0			17:00	285		267		0		0		
5:15	13		11		0		0			17:15	270		233		0		0		
5:30	22		13		0		0			17:30	227		165		0		0		
5:45	33	76	34	68	0	0	0	0	144	17:45	206	987	142	806	0	0	0	0	1793
6:00	42		19		0		0			18:00	153		118		0		0		
6:15	48		32		0		0			18:15	155		112		0		0		
6:30	63		51		0		0			18:30	133		111		0		0		
6:45	72	224	72	173	0	0	0	0	396	18:45	99	540	89	430	0	0	0	0	969
7:00	95		74		0		0			19:00	77		65		0		0		
7:15	123		79		0		0			19:15	88		65		0		0		
7:30	148		109		0		0			19:30	76		75		0		0		
7:45	165	531	145	406	0	0	0	0	936	19:45	76	316	58	262	0	0	0	0	578
8:00	153		150		0		0			20:00	63		56		0		0		
8:15	151		133		0		0			20:15	65		52		0		0		
8:30	178		138		0		0			20:30	65		50		0		0		
8:45	157	639	131	551	0	0	0	0	1190	20:45	45	238	31	189	0	0	0	0	426
9:00	144		133		0		0			21:00	44		32		0		0		
9:15	147		122		0		0			21:15	57		35		0		0		
9:30	141		130		0		0			21:30	31		33		0		0		
9:45	154	586	135	519	0	0	0	0	1105	21:45	24	155	22	121	0	0	0	0	275
10:00	166		139		0		0			22:00	26		20		0		0		
10:15	149		138		0		0			22:15	14		14		0		0		
10:30	157		131		0		0			22:30	14		14		0		0		
10:45	165	636	171	579	0	0	0	0	1215	22:45	11	65	22	70	0	0	0	0	135
11:00	139		185		0		0			23:00	13		11		0		0		
11:15	170		156		0		0			23:15	19		5		0		0		
11:30	188		172		0		0			23:30	8		9		0		0		
11:45	190	686	164	676	0	0	0	0	1362	23:45	13	52	7	31	0	0	0	0	83
Total Vol.		3485		408					**6555**			6509		5664					**12173**

Daily Totals

NB	SB	EB	WB	**Combined**
9994	6072			**18728**

	AM				**PM**			
Split %	53.2%	6.2%	**35.0%**		53.5%	46.5%		**65.0%**
Peak Hour	11:45	11:45	**11:45**		16:30	16:15		**16:30**
Volume	766	733	**1499**		1074	940		**2012**
P.H.F.	0.96	0.92	**0.96**		0.96	0.88		**0.91**

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Volumes for: ################## **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT191 Tank Farm between Higuera and Santa Fe, Lat: 35°14'48.37"N; Long: 120°40'19.52"W

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 1

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		5		14			12:00	0		0		179		253		
0:15	0		0		3		5			12:15	0		0		191		170		
0:30	0		0		5		9			12:30	0		0		191		149		
0:45	0	0	0	0	4	17	6	34	51	12:45	0	0	0	0	184	745	180	752	1497
1:00	0		0		1		4			13:00	0		0		139		178		
1:15	0		0		5		5			13:15	0		0		157		161		
1:30	0		0		5		7			13:30	0		0		158		163		
1:45	0	0	0	0	8	19	5	21	40	13:45	0	0	0	0	159	613	142	644	1257
2:00	0		0		5		1			14:00	0		0		131		171		
2:15	0		0		2		2			14:15	0		0		136		135		
2:30	0		0		3		3			14:30	0		0		137		178		
2:45	0	0	0	0	4	14	5	11	25	14:45	0	0	0	0	140	544	165	649	1193
3:00	0		0		2		2			15:00	0		0		149		162		
3:15	0		0		8		1			15:15	0		0		142		163		
3:30	0		0		2		2			15:30	0		0		123		188		
3:45	0	0	0	0	8	20	4	9	29	15:45	0	0	0	0	122	536	199	712	1248
4:00	0		0		2		10			16:00	0		0		180		185		
4:15	0		0		11		3			16:15	0		0		178		216		
4:30	0		0		17		9			16:30	0		0		177		225		
4:45	0	0	0	0	28	58	7	29	87	16:45	0	0	0	0	189	724	231	857	1581
5:00	0		0		22		12			17:00	0		0		178		303		
5:15	0		0		28		20			17:15	0		0		172		232		
5:30	0		0		44		18			17:30	0		0		161		220		
5:45	0	0	0	0	68	162	33	83	245	17:45	0	0	0	0	148	659	205	960	1619
6:00	0		0		43		45			18:00	0		0		98		146		
6:15	0		0		61		56			18:15	0		0		87		138		
6:30	0		0		81		47			18:30	0		0		82		131		
6:45	0	0	0	0	100	285	63	211	496	18:45	0	0	0	0	78	345	119	534	879
7:00	0		0		115		70			19:00	0		0		47		75		
7:15	0		0		113		102			19:15	0		0		74		88		
7:30	0		0		186		95			19:30	0		0		72		89		
7:45	0	0	0	0	224	638	115	382	1020	19:45	0	0	0	0	55	248	67	319	567
8:00	0		0		202		106			20:00	0		0		53		80		
8:15	0		0		207		127			20:15	0		0		42		56		
8:30	0		0		208		162			20:30	0		0		54		52		
8:45	0	0	0	0	206	823	149	544	1367	20:45	0	0	0	0	36	185	52	240	425
9:00	0		0		159		130			21:00	0		0		40		44		
9:15	0		0		118		130			21:15	0		0		31		38		
9:30	0		0		122		126			21:30	0		0		36		37		
9:45	0	0	0	0	143	542	147	533	1075	21:45	0	0	0	0	19	126	37	156	282
10:00	0		0		124		127			22:00	0		0		19		31		
10:15	0		0		137		136			22:15	0		0		21		13		
10:30	0		0		125		131			22:30	0		0		11		23		
10:45	0	0	0	0	153	539	130	524	1063	22:45	0	0	0	0	16	67	10	77	144
11:00	0		0		165		143			23:00	0		0		18		13		
11:15	0		0		175		153			23:15	0		0		3		7		
11:30	0		0		180		186			23:30	0		0		5		10		
11:45	0	0	0	0	179	699	170	652	1351	23:45	0	0	0	0	6	32	12	42	74
Total Vol.						3816		3033	**6849**							4824		5942	**10766**

Daily Totals

NB	SB	EB	WB	**Combined**
		8640	8975	**17615**

	AM			**PM**		
Split %	55.7%	44.3%	**38.9%**	44.8%	55.2%	**61.1%**
Peak Hour	7:45	11:30	**11:30**	12:00	16:30	**16:30**
Volume	841	779	**1508**	745	991	**1707**
P.H.F.	0.94	0.77	**0.87**	0.98	0.82	**0.89**

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Volumes for: Thursday, February 04, 2016 **CITY:** San Luis Obis **PROJECT:** SC0843

Location: ADT191 Tank Farm between Higuera and Santa Fe, Lat: 35°14'48.37"N; Long: 120°40'19.52"W

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 2

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		2		7			12:00	0		0		138		180		
0:15	0		0		6		8			12:15	0		0		141		160		
0:30	0		0		3		6			12:30	0		0		146		138		
0:45	0	0	0	0	7	18	3	24	42	12:45	0	0	0	0	146	571	174	652	1223
1:00	0		0		1		7			13:00	0		0		137		165		
1:15	0		0		5		6			13:15	0		0		156		161		
1:30	0		0		4		9			13:30	0		0		157		161		
1:45	0	0	0	0	8	18	5	27	45	13:45	0	0	0	0	159	609	141	628	1237
2:00	0		0		5		2			14:00	0		0		131		168		
2:15	0		0		4		0			14:15	0		0		133		130		
2:30	0		0		8		0			14:30	0		0		134		178		
2:45	0	0	0	0	6	23	3	5	28	14:45	0	0	0	0	140	538	157	633	1171
3:00	0		0		2		3			15:00	0		0		147		156		
3:15	0		0		5		1			15:15	0		0		141		155		
3:30	0		0		3		3			15:30	0		0		122		186		
3:45	0	0	0	0	15	25	7	14	39	15:45	0	0	0	0	120	530	198	695	1225
4:00	0		0		4		6			16:00	0		0		123		185		
4:15	0		0		8		6			16:15	0		0		130		180		
4:30	0		0		11		7			16:30	0		0		120		204		
4:45	0	0	0	0	23	46	11	30	76	16:45	0	0	0	0	148	521	216	785	1306
5:00	0		0		27		13			17:00	0		0		134		264		
5:15	0		0		29		15			17:15	0		0		111		190		
5:30	0		0		41		22			17:30	0		0		126		184		
5:45	0	0	0	0	50	147	39	89	236	17:45	0	0	0	0	110	481	195	833	1314
6:00	0		0		44		37			18:00	0		0		95		138		
6:15	0		0		54		41			18:15	0		0		84		137		
6:30	0		0		71		48			18:30	0		0		82		126		
6:45	0	0	0	0	99	268	63	189	457	18:45	0	0	0	0	77	338	118	519	857
7:00	0		0		89		75			19:00	0		0		47		75		
7:15	0		0		97		68			19:15	0		0		71		81		
7:30	0		0		144		91			19:30	0		0		71		83		
7:45	0	0	0	0	167	497	117	351	848	19:45	0	0	0	0	53	242	67	306	548
8:00	0		0		160		103			20:00	0		0		53		80		
8:15	0		0		140		103			20:15	0		0		42		53		
8:30	0		0		150		137			20:30	0		0		53		49		
8:45	0	0	0	0	139	589	135	478	1067	20:45	0	0	0	0	35	183	50	232	415
9:00	0		0		148		115			21:00	0		0		39		43		
9:15	0		0		117		129			21:15	0		0		30		37		
9:30	0		0		115		144			21:30	0		0		34		35		
9:45	0	0	0	0	118	498	106	494	992	21:45	0	0	0	0	16	119	34	149	268
10:00	0		0		130		133			22:00	0		0		17		25		
10:15	0		0		133		133			22:15	0		0		19		13		
10:30	0		0		123		126			22:30	0		0		11		19		
10:45	0	0	0	0	153	539	130	522	1061	22:45	0	0	0	0	14	61	8	65	126
11:00	0		0		140		140			23:00	0		0		16		11		
11:15	0		0		144		147			23:15	0		0		3		6		
11:30	0		0		148		177			23:30	0		0		5		9		
11:45	0	0	0	0	133	565	160	624	1189	23:45	0	0	0	0	5	29	12	38	67
Total Vol.					3233		2847		**6080**						4222		5535		**9757**

Daily Totals

NB	SB	EB	Side	Combined
		7455	8382	**15837**

	AM			PM		
Split %	53.2%	46.8%	**38.4%**	43.3%	56.7%	**61.6%**
Peak Hour	7:45	11:30	**11:30**	13:00	16:30	**16:15**
Volume	617	677	**1237**	609	874	**1396**
P.H.F.	0.92	0.94	**0.95**	0.96	0.83	**0.88**

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Volumes for: Wednesday, February 03, 2016 & Thursday, February 04, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT191 Tank Farm between Higuera and Santa Fe, Lat: 35°14'48.37"N; Long: 120°40'19.52"W

Prepared by AimTD LLC tel. 714 253 7888

2-DAY AVERAGE

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		4		11			12:00	0		0		159		217		
0:15	0		0		5		7			12:15	0		0		166		165		
0:30	0		0		4		8			12:30	0		0		169		144		
0:45	0	0	0	0	6	19	5	31	50	12:45	0	0	0	0	165	659	177	703	1362
1:00	0		0		1		6			13:00	0		0		138		172		
1:15	0		0		5		6			13:15	0		0		157		161		
1:30	0		0		5		8			13:30	0		0		158		162		
1:45	0	0	0	0	8	19	5	25	44	13:45	0	0	0	0	159	612	142	637	1249
2:00	0		0		5		2			14:00	0		0		131		170		
2:15	0		0		3		1			14:15	0		0		135		133		
2:30	0		0		6		2			14:30	0		0		136		178		
2:45	0	0	0	0	5	19	4	9	28	14:45	0	0	0	0	140	542	161	642	1184
3:00	0		0		2		3			15:00	0		0		148		159		
3:15	0		0		7		1			15:15	0		0		142		159		
3:30	0		0		3		3			15:30	0		0		123		187		
3:45	0	0	0	0	12	24	6	13	37	15:45	0	0	0	0	121	534	199	704	1238
4:00	0		0		3		8			16:00	0		0		152		185		
4:15	0		0		10		5			16:15	0		0		154		198		
4:30	0		0		14		8			16:30	0		0		149		215		
4:45	0	0	0	0	26	53	9	30	83	16:45	0	0	0	0	169	624	224	822	1446
5:00	0		0		25		13			17:00	0		0		156		284		
5:15	0		0		29		18			17:15	0		0		142		211		
5:30	0		0		43		20			17:30	0		0		144		202		
5:45	0	0	0	0	59	156	36	87	243	17:45	0	0	0	0	129	571	200	897	1468
6:00	0		0		44		41			18:00	0		0		97		142		
6:15	0		0		58		49			18:15	0		0		86		138		
6:30	0		0		76		48			18:30	0		0		82		129		
6:45	0	0	0	0	100	278	63	201	479	18:45	0	0	0	0	78	343	119	528	871
7:00	0		0		102		73			19:00	0		0		47		75		
7:15	0		0		105		85			19:15	0		0		73		85		
7:30	0		0		165		93			19:30	0		0		72		86		
7:45	0	0	0	0	196	568	116	367	935	19:45	0	0	0	0	54	246	67	313	559
8:00	0		0		181		105			20:00	0		0		53		80		
8:15	0		0		174		115			20:15	0		0		42		55		
8:30	0		0		179		150			20:30	0		0		54		51		
8:45	0	0	0	0	173	707	142	512	1219	20:45	0	0	0	0	36	185	51	237	422
9:00	0		0		154		123			21:00	0		0		40		44		
9:15	0		0		118		130			21:15	0		0		31		38		
9:30	0		0		119		135			21:30	0		0		35		36		
9:45	0	0	0	0	131	522	127	515	1037	21:45	0	0	0	0	18	124	36	154	278
10:00	0		0		127		130			22:00	0		0		18		28		
10:15	0		0		135		135			22:15	0		0		20		13		
10:30	0		0		124		129			22:30	0		0		11		21		
10:45	0	0	0	0	153	539	130	524	1063	22:45	0	0	0	0	15	64	9	71	135
11:00	0		0		153		142			23:00	0		0		17		12		
11:15	0		0		160		150			23:15	0		0		3		7		
11:30	0		0		164		182			23:30	0		0		5		10		
11:45	0	0	0	0	156	633	165	639	1272	23:45	0	0	0	0	6	31	12	41	72
Total Vol.						3537		2953	**6490**							4535		5749	**10284**

	Daily Totals				
	NB	SB	EB	WB	**Combined**
			8072	8702	**16774**

	AM			**PM**		
Split %	54.5%	45.5%	**38.7%**	44.1%	55.9%	**61.3%**
Peak Hour	7:45	11:30	**11:30**	12:00	16:30	**16:30**
Volume	730	729	**1374**	659	934	**1550**
P.H.F.	0.93	0.84	**0.91**	0.97	0.82	**0.88**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: Wednesday, March 16, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT107 Madonna between Pereira and Oceanaire, Lat: 35°15'31.63"N; Long: 120°41'7.92"W

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 1

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		11		16			12:00	0		0		198		240		
0:15	0		0		20		28			12:15	0		0		214		215		
0:30	0		0		13		21			12:30	0		0		188		187		
0:45	0	0	0	0	10	54	12	77	131	12:45	0	0	0	0	219	819	216	858	1677
1:00	0		0		6		12			13:00	0		0		223		237		
1:15	0		0		7		11			13:15	0		0		210		203		
1:30	0		0		7		12			13:30	0		0		189		175		
1:45	0	0	0	0	5	25	10	45	70	13:45	0	0	0	0	201	823	209	824	1647
2:00	0		0		4		16			14:00	0		0		182		196		
2:15	0		0		5		8			14:15	0		0		176		189		
2:30	0		0		4		6			14:30	0		0		194		199		
2:45	0	0	0	0	5	18	5	35	53	14:45	0	0	0	0	210	762	217	801	1563
3:00	0		0		3		8			15:00	0		0		252		225		
3:15	0		0		2		3			15:15	0		0		214		246		
3:30	0		0		1		2			15:30	0		0		220		226		
3:45	0	0	0	0	6	12	13	26	38	15:45	0	0	0	0	204	890	212	909	1799
4:00	0		0		6		9			16:00	0		0		216		219		
4:15	0		0		5		4			16:15	0		0		201		233		
4:30	0		0		11		10			16:30	0		0		192		257		
4:45	0	0	0	0	7	29	9	32	61	16:45	0	0	0	0	191	800	237	946	1746
5:00	0		0		8		6			17:00	0		0		230		233		
5:15	0		0		12		10			17:15	0		0		207		263		
5:30	0		0		19		8			17:30	0		0		173		251		
5:45	0	0	0	0	36	75	18	42	117	17:45	0	0	0	0	192	802	218	965	1767
6:00	0		0		27		12			18:00	0		0		184		208		
6:15	0		0		40		21			18:15	0		0		195		224		
6:30	0		0		74		32			18:30	0		0		161		182		
6:45	0	0	0	0	87	228	27	92	320	18:45	0	0	0	0	153	693	164	778	1471
7:00	0		0		95		54			19:00	0		0		150		145		
7:15	0		0		115		55			19:15	0		0		134		172		
7:30	0		0		186		84			19:30	0		0		133		177		
7:45	0	0	0	0	215	611	152	345	956	19:45	0	0	0	0	142	559	154	648	1207
8:00	0		0		196		143			20:00	0		0		134		142		
8:15	0		0		204		111			20:15	0		0		113		130		
8:30	0		0		167		85			20:30	0		0		95		92		
8:45	0	0	0	0	163	730	106	445	1175	20:45	0	0	0	0	89	431	119	483	914
9:00	0		0		140		93			21:00	0		0		70		80		
9:15	0		0		146		82			21:15	0		0		71		93		
9:30	0		0		144		80			21:30	0		0		53		94		
9:45	0	0	0	0	148	578	108	363	941	21:45	0	0	0	0	61	255	60	327	582
10:00	0		0		132		132			22:00	0		0		66		52		
10:15	0		0		150		129			22:15	0		0		45		59		
10:30	0		0		177		165			22:30	0		0		27		46		
10:45	0	0	0	0	158	617	146	572	1189	22:45	0	0	0	0	25	163	24	181	344
11:00	0		0		181		167			23:00	0		0		26		31		
11:15	0		0		177		187			23:15	0		0		18		27		
11:30	0		0		191		210			23:30	0		0		13		29		
11:45	0	0	0	0	200	749	185	749	1498	23:45	0	0	0	0	16	73	20	107	180
Total Vol.					3726		2823		**6549**						7070		7827		**14897**

Daily Totals

NB	SB	EB	WB	**Combined**
		10796	10650	**21446**

	AM				**PM**		
Split %	56.9%	43.1%	**30.5%**		47.5%	52.5%	**69.5%**
Peak Hour	11:30	11:30	**11:30**		14:45	16:30	**14:45**
Volume	803	850	**1653**		896	990	**1810**
P.H.F.	0.94	0.89	**0.94**		0.89	0.94	**0.95**

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Volumes for: Thursday, March 17, 2016 **CITY:** San Luis Obis **PROJECT:** SC0843

Location: ADT107 Madonna between Pereira and Oceanaire, Lat: 35°15'31.63"N; Long: 120°41'7.92"W Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 2

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		16		18			12:00	0		0		236		178		
0:15	0		0		14		14			12:15	0		0		195		206		
0:30	0		0		10		14			12:30	0		0		203		185		
0:45	0	0	0	0	9	49	16	62	111	12:45	0	0	0	0	223	857	189	758	1615
1:00	0		0		14		8			13:00	0		0		214		169		
1:15	0		0		4		5			13:15	0		0		182		180		
1:30	0		0		3		10			13:30	0		0		198		168		
1:45	0	0	0	0	4	25	7	30	55	13:45	0	0	0	0	210	804	192	709	1513
2:00	0		0		4		9			14:00	0		0		204		172		
2:15	0		0		3		3			14:15	0		0		209		178		
2:30	0		0		4		1			14:30	0		0		187		151		
2:45	0	0	0	0	3	14	6	19	33	14:45	0	0	0	0	187	787	231	732	1519
3:00	0		0		5		1			15:00	0		0		211		183		
3:15	0		0		0		1			15:15	0		0		165		167		
3:30	0		0		2		3			15:30	0		0		170		208		
3:45	0	0	0	0	2	9	2	7	16	15:45	0	0	0	0	179	725	192	750	1475
4:00	0		0		7		3			16:00	0		0		183		214		
4:15	0		0		8		4			16:15	0		0		190		226		
4:30	0		0		5		5			16:30	0		0		197		225		
4:45	0	0	0	0	9	29	6	18	47	16:45	0	0	0	0	162	732	218	883	1615
5:00	0		0		14		6			17:00	0		0		173		200		
5:15	0		0		8		9			17:15	0		0		152		218		
5:30	0		0		24		13			17:30	0		0		183		170		
5:45	0	0	0	0	31	77	18	46	123	17:45	0	0	0	0	158	666	169	757	1423
6:00	0		0		34		9			18:00	0		0		140		196		
6:15	0		0		49		25			18:15	0		0		159		164		
6:30	0		0		68		42			18:30	0		0		150		143		
6:45	0	0	0	0	100	251	39	115	366	18:45	0	0	0	0	140	589	144	647	1236
7:00	0		0		68		45			19:00	0		0		146		161		
7:15	0		0		87		60			19:15	0		0		135		160		
7:30	0		0		192		72			19:30	0		0		104		150		
7:45	0	0	0	0	170	517	125	302	819	19:45	0	0	0	0	115	500	121	592	1092
8:00	0		0		182		139			20:00	0		0		198		243		
8:15	0		0		155		100			20:15	0		0		90		112		
8:30	0		0		137		97			20:30	0		0		90		104		
8:45	0	0	0	0	152	626	100	436	1062	20:45	0	0	0	0	71	449	106	565	1014
9:00	0		0		152		93			21:00	0		0		65		104		
9:15	0		0		115		117			21:15	0		0		63		97		
9:30	0		0		132		114			21:30	0		0		64		81		
9:45	0	0	0	0	159	558	121	445	1003	21:45	0	0	0	0	54	246	62	344	590
10:00	0		0		149		143			22:00	0		0		48		58		
10:15	0		0		156		135			22:15	0		0		29		47		
10:30	0		0		176		127			22:30	0		0		26		47		
10:45	0	0	0	0	176	657	155	560	1217	22:45	0	0	0	0	29	132	33	185	317
11:00	0		0		176		149			23:00	0		0		20		36		
11:15	0		0		232		153			23:15	0		0		20		33		
11:30	0		0		227		188			23:30	0		0		19		28		
11:45	0	0	0	0	211	846	184	674	1520	23:45	0	0	0	0	23	82	30	127	209
Total Vol.						3658		2714	**6372**							6569		7049	**13618**

Daily Totals

NB	SB	EB	Side	Combined
		10227	9763	**19990**

	AM			PM		
Split %	57.4%	42.6%	**31.9%**	48.2%	51.8%	**68.1%**
Peak Hour	11:15	11:30	**11:30**	12:00	16:00	**12:00**
Volume	906	756	**1625**	857	883	**1615**
P.H.F.	0.96	0.92	**0.98**	0.91	0.98	**0.98**

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Volumes for: Wednesday, March 16, 2016 & Thursday, March 17, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT107 Madonna between Pereira and Oceanaire, Lat: 35°15'31.63"N; Long: 120°41'7.92"W

Prepared by AimTD LLC tel. 714 253 7888

2-DAY AVERAGE

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		14		17			12:00	0		0		217		209		
0:15	0		0		17		21			12:15	0		0		205		211		
0:30	0		0		12		18			12:30	0		0		196		186		
0:45	0	0	0	0	10	53	14	70	123	12:45	0	0	0	0	221	839	203	809	1648
1:00	0		0		10		10			13:00	0		0		219		203		
1:15	0		0		6		8			13:15	0		0		196		192		
1:30	0		0		5		11			13:30	0		0		194		172		
1:45	0	0	0	0	5	26	9	38	64	13:45	0	0	0	0	206	815	201	768	1583
2:00	0		0		4		13			14:00	0		0		193		184		
2:15	0		0		4		6			14:15	0		0		193		184		
2:30	0		0		4		4			14:30	0		0		191		175		
2:45	0	0	0	0	4	16	6	29	45	14:45	0	0	0	0	199	776	224	767	1543
3:00	0		0		4		5			15:00	0		0		232		204		
3:15	0		0		1		2			15:15	0		0		190		207		
3:30	0		0		2		3			15:30	0		0		195		217		
3:45	0	0	0	0	4	11	8	18	29	15:45	0	0	0	0	192	809	202	830	1639
4:00	0		0		7		6			16:00	0		0		200		217		
4:15	0		0		7		4			16:15	0		0		196		230		
4:30	0		0		8		8			16:30	0		0		195		241		
4:45	0	0	0	0	8	30	8	26	56	16:45	0	0	0	0	177	768	228	916	1684
5:00	0		0		11		6			17:00	0		0		202		217		
5:15	0		0		10		10			17:15	0		0		180		241		
5:30	0		0		22		11			17:30	0		0		178		211		
5:45	0	0	0	0	34	77	18	45	122	17:45	0	0	0	0	175	735	194	863	1598
6:00	0		0		31		11			18:00	0		0		162		202		
6:15	0		0		45		23			18:15	0		0		177		194		
6:30	0		0		71		37			18:30	0		0		156		163		
6:45	0	0	0	0	94	241	33	104	345	18:45	0	0	0	0	147	642	154	713	1355
7:00	0		0		82		50			19:00	0		0		148		153		
7:15	0		0		101		58			19:15	0		0		135		166		
7:30	0		0		189		78			19:30	0		0		119		164		
7:45	0	0	0	0	193	565	139	325	890	19:45	0	0	0	0	129	531	138	621	1152
8:00	0		0		189		141			20:00	0		0		166		193		
8:15	0		0		180		106			20:15	0		0		102		121		
8:30	0		0		152		91			20:30	0		0		93		98		
8:45	0	0	0	0	158	679	103	441	1120	20:45	0	0	0	0	80	441	113	525	966
9:00	0		0		146		93			21:00	0		0		68		92		
9:15	0		0		131		100			21:15	0		0		67		95		
9:30	0		0		138		97			21:30	0		0		59		88		
9:45	0	0	0	0	154	569	115	405	974	21:45	0	0	0	0	58	252	61	336	588
10:00	0		0		141		138			22:00	0		0		57		55		
10:15	0		0		153		132			22:15	0		0		37		53		
10:30	0		0		177		146			22:30	0		0		27		47		
10:45	0	0	0	0	167	638	151	567	1205	22:45	0	0	0	0	27	148	29	184	332
11:00	0		0		179		158			23:00	0		0		23		34		
11:15	0		0		205		170			23:15	0		0		19		30		
11:30	0		0		209		199			23:30	0		0		16		29		
11:45	0	0	0	0	206	799	185	712	1511	23:45	0	0	0	0	20	78	25	118	196

Total Vol.						3704		2780	**6484**							6834		7450	**14284**

Daily Totals

NB	SB	EB	WB	Combined
		10538	10230	**20768**

	AM			PM		
Split %	57.1%	42.9%	**31.2%**	47.8%	52.2%	**68.8%**
Peak Hour	11:15	11:30	**11:30**	12:15	16:30	**16:15**
Volume	837	804	**1641**	841	927	**1686**
P.H.F.	0.96	0.95	**0.96**	0.95	0.96	**0.97**

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Volumes for: Wednesday, March 16, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT110 Madonna between El Mercado and US 101 SB , Lat: 35°15'47.58"N; Long: 120°40'39.49"W

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 1

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		15		20			12:00	0		0		213		286		
0:15	0		0		22		30			12:15	0		0		263		248		
0:30	0		0		19		26			12:30	0		0		235		272		
0:45	0	0	0	0	20	76	16	92	168	12:45	0	0	0	0	279	990	256	1062	2052
1:00	0		0		14		13			13:00	0		0		254		249		
1:15	0		0		10		18			13:15	0		0		261		240		
1:30	0		0		11		11			13:30	0		0		276		201		
1:45	0	0	0	0	4	39	11	53	92	13:45	0	0	0	0	234	1025	218	908	1933
2:00	0		0		7		16			14:00	0		0		248		205		
2:15	0		0		7		14			14:15	0		0		227		220		
2:30	0		0		8		10			14:30	0		0		254		250		
2:45	0	0	0	0	8	30	6	46	76	14:45	0	0	0	0	249	978	249	924	1902
3:00	0		0		7		9			15:00	0		0		297		234		
3:15	0		0		3		4			15:15	0		0		259		278		
3:30	0		0		2		4			15:30	0		0		287		274		
3:45	0	0	0	0	7	19	14	31	50	15:45	0	0	0	0	286	1129	294	1080	2209
4:00	0		0		6		11			16:00	0		0		284		253		
4:15	0		0		11		12			16:15	0		0		246		266		
4:30	0		0		13		8			16:30	0		0		229		293		
4:45	0	0	0	0	9	39	16	47	86	16:45	0	0	0	0	244	1003	274	1086	2089
5:00	0		0		17		9			17:00	0		0		259		310		
5:15	0		0		22		9			17:15	0		0		242		357		
5:30	0		0		25		22			17:30	0		0		240		286		
5:45	0	0	0	0	48	112	16	56	168	17:45	0	0	0	0	218	959	236	1189	2148
6:00	0		0		36		22			18:00	0		0		243		219		
6:15	0		0		55		29			18:15	0		0		216		237		
6:30	0		0		90		34			18:30	0		0		196		212		
6:45	0	0	0	0	104	285	42	127	412	18:45	0	0	0	0	208	863	186	854	1717
7:00	0		0		114		76			19:00	0		0		192		164		
7:15	0		0		161		101			19:15	0		0		173		179		
7:30	0		0		271		106			19:30	0		0		169		170		
7:45	0	0	0	0	288	834	222	505	1339	19:45	0	0	0	0	188	722	131	644	1366
8:00	0		0		264		172			20:00	0		0		174		154		
8:15	0		0		275		146			20:15	0		0		144		156		
8:30	0		0		236		117			20:30	0		0		128		114		
8:45	0	0	0	0	244	1019	125	560	1579	20:45	0	0	0	0	107	553	138	562	1115
9:00	0		0		211		99			21:00	0		0		106		112		
9:15	0		0		200		103			21:15	0		0		91		115		
9:30	0		0		201		95			21:30	0		0		86		95		
9:45	0	0	0	0	198	810	144	441	1251	21:45	0	0	0	0	77	360	87	409	769
10:00	0		0		162		152			22:00	0		0		88		88		
10:15	0		0		202		145			22:15	0		0		74		80		
10:30	0		0		214		177			22:30	0		0		60		48		
10:45	0	0	0	0	187	765	205	679	1444	22:45	0	0	0	0	45	267	48	264	531
11:00	0		0		177		184			23:00	0		0		36		39		
11:15	0		0		204		197			23:15	0		0		35		30		
11:30	0		0		184		215			23:30	0		0		23		37		
11:45	0	0	0	0	216	781	219	815	1596	23:45	0	0	0	0	23	117	33	139	256
Total Vol.						4809		3452	**8261**							8966		9121	**18087**

Daily Totals

NB	SB	EB	WB	**Combined**
		13775	12573	**26348**

	AM				**PM**		
Split %	58.2%	41.8%	**31.4%**		49.6%	50.4%	**68.6%**
Peak Hour	7:30	11:45	**11:45**		15:00	16:30	**15:15**
Volume	1098	1025	**1952**		1129	1234	**2215**
P.H.F.	0.95	0.90	**0.95**		0.95	0.86	**0.95**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: Thursday, March 17, 2016 **CITY:** San Luis Obis **PROJECT:** SC0843

Location: ADT110 Madonna between El Mercado and US 101 SB , Lat: 35°15'47.58"N; Long: 120°40'39.49"W

Prepared by AimTD LLC tel. 714 253 7888

Weather conditions: Sunny

DAY 2

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		22		24			12:00	0		0		281		254		
0:15	0		0		24		11			12:15	0		0		289		253		
0:30	0		0		12		23			12:30	0		0		285		226		
0:45	0	0	0	0	17	75	19	77	152	12:45	0	0	0	0	316	1171	225	958	2129
1:00	0		0		17		14			13:00	0		0		293		208		
1:15	0		0		15		13			13:15	0		0		262		235		
1:30	0		0		10		10			13:30	0		0		267		215		
1:45	0	0	0	0	9	51	9	46	97	13:45	0	0	0	0	296	1118	223	881	1999
2:00	0		0		6		10			14:00	0		0		278		217		
2:15	0		0		6		8			14:15	0		0		287		210		
2:30	0		0		4		2			14:30	0		0		245		218		
2:45	0	0	0	0	7	23	9	29	52	14:45	0	0	0	0	300	1110	283	928	2038
3:00	0		0		11		1			15:00	0		0		319		263		
3:15	0		0		4		5			15:15	0		0		281		235		
3:30	0		0		2		5			15:30	0		0		255		259		
3:45	0	0	0	0	2	19	3	14	33	15:45	0	0	0	0	264	1119	277	1034	2153
4:00	0		0		10		3			16:00	0		0		257		259		
4:15	0		0		10		8			16:15	0		0		282		281		
4:30	0		0		5		8			16:30	0		0		241		269		
4:45	0	0	0	0	13	38	11	30	68	16:45	0	0	0	0	246	1026	287	1096	2122
5:00	0		0		20		7			17:00	0		0		279		314		
5:15	0		0		17		14			17:15	0		0		219		330		
5:30	0		0		36		18			17:30	0		0		255		233		
5:45	0	0	0	0	46	119	24	63	182	17:45	0	0	0	0	240	993	238	1115	2108
6:00	0		0		49		23			18:00	0		0		248		208		
6:15	0		0		67		33			18:15	0		0		219		196		
6:30	0		0		87		38			18:30	0		0		215		174		
6:45	0	0	0	0	121	324	52	146	470	18:45	0	0	0	0	191	873	189	767	1640
7:00	0		0		96		53			19:00	0		0		189		190		
7:15	0		0		148		101			19:15	0		0		172		176		
7:30	0		0		261		100			19:30	0		0		175		153		
7:45	0	0	0	0	263	768	170	424	1192	19:45	0	0	0	0	154	690	140	659	1349
8:00	0		0		256		184			20:00	0		0		168		139		
8:15	0		0		225		122			20:15	0		0		109		161		
8:30	0		0		226		106			20:30	0		0		115		135		
8:45	0	0	0	0	239	946	131	543	1489	20:45	0	0	0	0	111	503	124	559	1062
9:00	0		0		213		123			21:00	0		0		106		139		
9:15	0		0		175		159			21:15	0		0		104		135		
9:30	0		0		196		144			21:30	0		0		97		111		
9:45	0	0	0	0	205	789	123	549	1338	21:45	0	0	0	0	80	387	103	488	875
10:00	0		0		200		162			22:00	0		0		81		75		
10:15	0		0		195		167			22:15	0		0		87		88		
10:30	0		0		215		162			22:30	0		0		51		64		
10:45	0	0	0	0	221	831	195	686	1517	22:45	0	0	0	0	40	259	55	282	541
11:00	0		0		225		221			23:00	0		0		64		51		
11:15	0		0		312		193			23:15	0		0		37		57		
11:30	0		0		283		216			23:30	0		0		37		42		
11:45	0	0	0	0	292	1112	242	872	1984	23:45	0	0	0	0	25	163	29	179	342
Total Vol.						5095		3479	**8574**							9412		8946	**18358**

Daily Totals

NB	SB	EB	Side	Combined
		14507	12425	**26932**

	AM			PM		
Split %	59.4%	40.6%	**31.8%**	51.3%	48.7%	**68.2%**
Peak Hour	11:15	11:45	**11:45**	12:15	16:30	**16:15**
Volume	1168	975	**2122**	1183	1200	**2199**
P.H.F.	0.94	0.96	**0.98**	0.94	0.91	**0.93**

pacific@aimtd.com Tell. 714 253 7888

Volumes for: Wednesday, March 16, 2016 & Thursday, March 17, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: **ADT110 Madonna between El Mercado and US 101 SB , Lat: 35°15'47.58"N; Long: 120°40'39.49"W**

Prepared by AimTD LLC tel. 714 253 7888

2-DAY AVERAGE

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		19		22			12:00	0		0		247		270		
0:15	0		0		23		21			12:15	0		0		276		251		
0:30	0		0		16		25			12:30	0		0		260		249		
0:45	0	0	0	0	19	77	18	86	163	12:45	0	0	0	0	298	1081	241	1011	2092
1:00	0		0		16		14			13:00	0		0		274		229		
1:15	0		0		13		16			13:15	0		0		262		238		
1:30	0		0		11		11			13:30	0		0		272		208		
1:45	0	0	0	0	7	47	10	51	98	13:45	0	0	0	0	265	1073	221	896	1969
2:00	0		0		7		13			14:00	0		0		263		211		
2:15	0		0		7		11			14:15	0		0		257		215		
2:30	0		0		6		6			14:30	0		0		250		234		
2:45	0	0	0	0	8	28	8	38	66	14:45	0	0	0	0	275	1045	266	926	1971
3:00	0		0		9		5			15:00	0		0		308		249		
3:15	0		0		4		5			15:15	0		0		270		257		
3:30	0		0		2		5			15:30	0		0		271		267		
3:45	0	0	0	0	5	20	9	24	44	15:45	0	0	0	0	275	1124	286	1059	2183
4:00	0		0		8		7			16:00	0		0		271		256		
4:15	0		0		11		10			16:15	0		0		264		274		
4:30	0		0		9		8			16:30	0		0		235		281		
4:45	0	0	0	0	11	39	14	39	78	16:45	0	0	0	0	245	1015	281	1092	2107
5:00	0		0		19		8			17:00	0		0		269		312		
5:15	0		0		20		12			17:15	0		0		231		344		
5:30	0		0		31		20			17:30	0		0		248		260		
5:45	0	0	0	0	47	117	20	60	177	17:45	0	0	0	0	229	977	237	1153	2130
6:00	0		0		43		23			18:00	0		0		246		214		
6:15	0		0		61		31			18:15	0		0		218		217		
6:30	0		0		89		36			18:30	0		0		206		193		
6:45	0	0	0	0	113	306	47	137	443	18:45	0	0	0	0	200	870	188	812	1682
7:00	0		0		105		65			19:00	0		0		191		177		
7:15	0		0		155		101			19:15	0		0		173		178		
7:30	0		0		266		103			19:30	0		0		172		162		
7:45	0	0	0	0	276	802	196	465	1267	19:45	0	0	0	0	171	707	136	653	1360
8:00	0		0		260		178			20:00	0		0		171		147		
8:15	0		0		250		134			20:15	0		0		127		159		
8:30	0		0		231		112			20:30	0		0		122		125		
8:45	0	0	0	0	242	983	128	552	1535	20:45	0	0	0	0	109	529	131	562	1091
9:00	0		0		212		111			21:00	0		0		106		126		
9:15	0		0		188		131			21:15	0		0		98		125		
9:30	0		0		199		120			21:30	0		0		92		103		
9:45	0	0	0	0	202	801	134	496	1297	21:45	0	0	0	0	79	375	95	449	824
10:00	0		0		181		157			22:00	0		0		85		82		
10:15	0		0		199		156			22:15	0		0		81		84		
10:30	0		0		215		170			22:30	0		0		56		56		
10:45	0	0	0	0	204	799	200	683	1482	22:45	0	0	0	0	43	265	52	274	539
11:00	0		0		201		203			23:00	0		0		50		45		
11:15	0		0		258		195			23:15	0		0		36		44		
11:30	0		0		234		216			23:30	0		0		30		40		
11:45	0	0	0	0	254	947	231	845	1792	23:45	0	0	0	0	24	140	31	160	300
Total Vol.						4966		3476	**8442**							9201		9047	**18248**

	Daily Totals				
	NB	SB	EB	WB	**Combined**
			14167	12523	**26690**
	AM			**PM**	
Split %	58.8%	41.2%	**31.6%**	50.4%	49.6%	**68.4%**
Peak Hour	7:30	11:45	**11:45**	14:45	16:30	**16:30**
Volume	1052	1001	**2038**	1124	1218	**2198**
P.H.F.	0.95	0.93	**0.97**	0.91	0.89	**0.95**

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Volumes for: ################## **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT166 Prado between US 101 and Higuera, Lat: 35°15'18.10"N; Long: 120°40'11.49"W **Prepared by AimTD LLC tel. 714 253 7888**

Weather conditions: Sunny

DAY 1

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		1		3			12:00	0		0		29		120		
0:15	0		0		2		4			12:15	0		0		34		110		
0:30	0		0		1		5			12:30	0		0		39		107		
0:45	0	0	0	0	2	6	2	14	20	12:45	0	0	0	0	38	140	114	451	591
1:00	0		0		1		4			13:00	0		0		34		116		
1:15	0		0		0		1			13:15	0		0		41		102		
1:30	0		0		0		2			13:30	0		0		39		93		
1:45	0	0	0	0	2	3	3	10	13	13:45	0	0	0	0	34	148	107	418	566
2:00	0		0		1		5			14:00	0		0		47		115		
2:15	0		0		0		4			14:15	0		0		49		118		
2:30	0		0		0		3			14:30	0		0		27		127		
2:45	0	0	0	0	0	1	0	12	13	14:45	0	0	0	0	36	159	117	477	636
3:00	0		0		0		1			15:00	0		0		40		111		
3:15	0		0		0		1			15:15	0		0		41		125		
3:30	0		0		0		2			15:30	0		0		42		143		
3:45	0	0	0	0	1	1	2	6	7	15:45	0	0	0	0	35	158	154	533	691
4:00	0		0		2		7			16:00	0		0		26		156		
4:15	0		0		1		4			16:15	0		0		34		142		
4:30	0		0		1		5			16:30	0		0		42		181		
4:45	0	0	0	0	1	5	4	20	25	16:45	0	0	0	0	56	158	177	656	814
5:00	0		0		1		4			17:00	0		0		38		173		
5:15	0		0		2		10			17:15	0		0		33		158		
5:30	0		0		4		7			17:30	0		0		24		168		
5:45	0	0	0	0	8	15	13	34	49	17:45	0	0	0	0	20	115	149	648	763
6:00	0		0		5		21			18:00	0		0		14		118		
6:15	0		0		14		22			18:15	0		0		21		112		
6:30	0		0		25		47			18:30	0		0		10		110		
6:45	0	0	0	0	50	94	39	129	223	18:45	0	0	0	0	10	55	56	396	451
7:00	0		0		51		51			19:00	0		0		9		57		
7:15	0		0		47		70			19:15	0		0		9		48		
7:30	0		0		53		114			19:30	0		0		8		27		
7:45	0	0	0	0	63	214	104	339	553	19:45	0	0	0	0	9	35	42	174	209
8:00	0		0		77		87			20:00	0		0		5		44		
8:15	0		0		51		87			20:15	0		0		8		27		
8:30	0		0		41		84			20:30	0		0		4		44		
8:45	0	0	0	0	51	220	73	331	551	20:45	0	0	0	0	8	25	28	143	168
9:00	0		0		42		75			21:00	0		0		9		21		
9:15	0		0		42		72			21:15	0		0		2		25		
9:30	0		0		30		71			21:30	0		0		5		23		
9:45	0	0	0	0	41	155	75	293	448	21:45	0	0	0	0	4	20	27	96	116
10:00	0		0		33		74			22:00	0		0		2		22		
10:15	0		0		40		68			22:15	0		0		4		4		
10:30	0		0		39		92			22:30	0		0		3		14		
10:45	0	0	0	0	35	147	79	313	460	22:45	0	0	0	0	4	13	4	44	57
11:00	0		0		41		62			23:00	0		0		6		8		
11:15	0		0		34		87			23:15	0		0		2		12		
11:30	0		0		28		99			23:30	0		0		0		6		
11:45	0	0	0	0	30	133	126	374	507	23:45	0	0	0	0	2	10	5	31	41
Total Vol.						994		1875	**2869**							1036		4067	**5103**

Daily Totals

NB	SB	EB	WB	**Combined**
		2030	5942	**7972**

	AM			**PM**		
Split %	34.6%	65.4%	**36.0%**	20.3%	79.7%	**64.0%**
Peak Hour	7:30	11:45	**7:30**	16:15	16:30	**16:30**
Volume	244	463	**636**	170	689	**858**
P.H.F.	0.79	0.92	**0.95**	0.76	0.95	**0.92**

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Volumes for: Thursday, February 04, 2016 **CITY:** San Luis Obis **PROJECT:** SC0843

Location: ADT166 Prado between US 101 and Higuera, Lat: 35°15'18.10"N; Long: 120°40'11.49"W **Prepared by AimTD LLC tel. 714 253 7888**

Weather conditions: Sunny

DAY 2

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		1		4			12:00	0		0		29		125		
0:15	0		0		1		4			12:15	0		0		34		109		
0:30	0		0		1		4			12:30	0		0		39		107		
0:45	0	0	0	0	2	5	2	14	19	12:45	0	0	0	0	38	140	115	456	596
1:00	0		0		1		4			13:00	0		0		35		118		
1:15	0		0		0		2			13:15	0		0		45		108		
1:30	0		0		1		2			13:30	0		0		36		91		
1:45	0	0	0	0	1	3	6	14	17	13:45	0	0	0	0	31	147	108	425	572
2:00	0		0		0		3			14:00	0		0		46		115		
2:15	0		0		1		1			14:15	0		0		49		119		
2:30	0		0		2		3			14:30	0		0		27		124		
2:45	0	0	0	0	0	3	2	9	12	14:45	0	0	0	0	36	158	119	477	635
3:00	0		0		0		2			15:00	0		0		40		115		
3:15	0		0		2		4			15:15	0		0		41		125		
3:30	0		0		0		0			15:30	0		0		41		138		
3:45	0	0	0	0	1	3	3	9	12	15:45	0	0	0	0	34	156	160	538	694
4:00	0		0		2		1			16:00	0		0		27		156		
4:15	0		0		0		3			16:15	0		0		32		140		
4:30	0		0		1		7			16:30	0		0		43		174		
4:45	0	0	0	0	2	5	6	17	22	16:45	0	0	0	0	59	161	178	648	809
5:00	0		0		5		3			17:00	0		0		34		163		
5:15	0		0		3		11			17:15	0		0		33		165		
5:30	0		0		4		13			17:30	0		0		26		177		
5:45	0	0	0	0	4	16	11	38	54	17:45	0	0	0	0	19	112	141	646	758
6:00	0		0		10		19			18:00	0		0		14		118		
6:15	0		0		16		23			18:15	0		0		21		111		
6:30	0		0		18		33			18:30	0		0		10		107		
6:45	0	0	0	0	50	94	47	122	216	18:45	0	0	0	0	10	55	58	394	449
7:00	0		0		48		54			19:00	0		0		8		58		
7:15	0		0		52		64			19:15	0		0		8		49		
7:30	0		0		48		91			19:30	0		0		10		45		
7:45	0	0	0	0	72	220	96	305	525	19:45	0	0	0	0	7	33	44	196	229
8:00	0		0		63		98			20:00	0		0		5		48		
8:15	0		0		36		98			20:15	0		0		8		30		
8:30	0		0		58		93			20:30	0		0		4		43		
8:45	0	0	0	0	50	207	98	387	594	20:45	0	0	0	0	7	24	28	149	173
9:00	0		0		50		71			21:00	0		0		8		22		
9:15	0		0		46		67			21:15	0		0		2		26		
9:30	0		0		37		72			21:30	0		0		5		22		
9:45	0	0	0	0	38	171	77	287	458	21:45	0	0	0	0	4	19	28	98	117
10:00	0		0		27		107			22:00	0		0		3		23		
10:15	0		0		44		84			22:15	0		0		5		3		
10:30	0		0		34		77			22:30	0		0		3		13		
10:45	0	0	0	0	22	127	81	349	476	22:45	0	0	0	0	4	15	4	43	58
11:00	0		0		31		102			23:00	0		0		6		8		
11:15	0		0		35		92			23:15	0		0		2		11		
11:30	0		0		28		96			23:30	0		0		0		6		
11:45	0	0	0	0	29	123	126	416	539	23:45	0	0	0	0	2	10	5	30	40
Total Vol.						977		1967	**2944**							1030		4100	**5130**

Daily Totals

NB	SB	EB	Side	Combined
		2007	6067	**8074**

	AM			PM		
Split %	33.2%	66.8%	**36.5%**	20.1%	79.9%	**63.5%**
Peak Hour	7:15	11:45	**7:45**	16:30	16:45	**16:30**
Volume	235	467	**614**	169	683	**849**
P.H.F.	0.82	0.93	**0.91**	0.72	0.96	**0.90**

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Volumes for: Wednesday, February 03, 2016 & Thursday, February 04, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: **ADT166 Prado between US 101 and Higuera, Lat: 35°15'18.10"N; Long: 120°40'11.49"W**

Prepared by AimTD LLC tel. 714 253 7888

2-DAY AVERAGE

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		1		4			12:00	0		0		29		123		
0:15	0		0		2		4			12:15	0		0		34		110		
0:30	0		0		1		5			12:30	0		0		39		107		
0:45	0	0	0	0	2	6	2	15	21	12:45	0	0	0	0	38	140	115	455	595
1:00	0		0		1		4			13:00	0		0		35		117		
1:15	0		0		0		2			13:15	0		0		43		105		
1:30	0		0		1		2			13:30	0		0		38		92		
1:45	0	0	0	0	2	4	5	13	17	13:45	0	0	0	0	33	149	108	422	571
2:00	0		0		1		4			14:00	0		0		47		115		
2:15	0		0		1		3			14:15	0		0		49		119		
2:30	0		0		1		3			14:30	0		0		27		126		
2:45	0	0	0	0	0	3	1	11	14	14:45	0	0	0	0	36	159	118	478	637
3:00	0		0		0		2			15:00	0		0		40		113		
3:15	0		0		1		3			15:15	0		0		41		125		
3:30	0		0		0		1			15:30	0		0		42		141		
3:45	0	0	0	0	1	2	3	9	11	15:45	0	0	0	0	35	158	157	536	694
4:00	0		0		2		4			16:00	0		0		27		156		
4:15	0		0		1		4			16:15	0		0		33		141		
4:30	0		0		1		6			16:30	0		0		43		178		
4:45	0	0	0	0	2	6	5	19	25	16:45	0	0	0	0	58	161	178	653	814
5:00	0		0		3		4			17:00	0		0		36		168		
5:15	0		0		3		11			17:15	0		0		33		162		
5:30	0		0		4		10			17:30	0		0		25		173		
5:45	0	0	0	0	6	16	12	37	53	17:45	0	0	0	0	20	114	145	648	762
6:00	0		0		8		20			18:00	0		0		14		118		
6:15	0		0		15		23			18:15	0		0		21		112		
6:30	0		0		22		40			18:30	0		0		10		109		
6:45	0	0	0	0	50	95	43	126	221	18:45	0	0	0	0	10	55	57	396	451
7:00	0		0		50		53			19:00	0		0		9		58		
7:15	0		0		50		67			19:15	0		0		9		49		
7:30	0		0		51		103			19:30	0		0		9		36		
7:45	0	0	0	0	68	219	100	323	542	19:45	0	0	0	0	8	35	43	186	221
8:00	0		0		70		93			20:00	0		0		5		46		
8:15	0		0		44		93			20:15	0		0		8		29		
8:30	0		0		50		89			20:30	0		0		4		44		
8:45	0	0	0	0	51	215	86	361	576	20:45	0	0	0	0	8	25	28	147	172
9:00	0		0		46		73			21:00	0		0		9		22		
9:15	0		0		44		70			21:15	0		0		2		26		
9:30	0		0		34		72			21:30	0		0		5		23		
9:45	0	0	0	0	40	164	76	291	455	21:45	0	0	0	0	4	20	28	99	119
10:00	0		0		30		91			22:00	0		0		3		23		
10:15	0		0		42		76			22:15	0		0		5		4		
10:30	0		0		37		85			22:30	0		0		3		14		
10:45	0	0	0	0	29	138	80	332	470	22:45	0	0	0	0	4	15	4	45	60
11:00	0		0		36		82			23:00	0		0		6		8		
11:15	0		0		35		90			23:15	0		0		2		12		
11:30	0		0		28		98			23:30	0		0		0		6		
11:45	0	0	0	0	30	129	126	396	525	23:45	0	0	0	0	2	10	5	31	41
Total Vol.						997		1933	**2930**							1041		4096	**5137**

Daily Totals

NB	SB	EB	WB	Combined
		2038	6029	**8067**

	AM			PM		
Split %	34.0%	66.0%	**36.3%**	20.3%	79.7%	**63.7%**
Peak Hour	7:15	11:45	**7:30**	16:15	16:30	**16:30**
Volume	239	466	**622**	170	686	**856**
P.H.F.	0.85	0.92	**0.93**	0.73	0.96	**0.91**

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Volumes for: ################## **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: ADT167 Prado between Higuera and City Line, Lat: 35°15'15.84"N; Long: 120°40'6.99"W **Prepared by AimTD LLC tel. 714 253 7888**

Weather conditions: Sunny

DAY 1

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		1		0			12:00	0		0		45		84		
0:15	0		0		0		1			12:15	0		0		51		61		
0:30	0		0		1		0			12:30	0		0		39		49		
0:45	0	0	0	0	0	2	1	2	4	12:45	0	0	0	0	60	195	54	248	443
1:00	0		0		0		0			13:00	0		0		47		41		
1:15	0		0		1		2			13:15	0		0		63		42		
1:30	0		0		0		1			13:30	0		0		43		41		
1:45	0	0	0	0	0	1	0	3	4	13:45	0	0	0	0	40	193	37	161	354
2:00	0		0		0		1			14:00	0		0		46		43		
2:15	0		0		0		0			14:15	0		0		32		44		
2:30	0		0		0		0			14:30	0		0		34		42		
2:45	0	0	0	0	2	2	0	1	3	14:45	0	0	0	0	59	171	55	184	355
3:00	0		0		0		0			15:00	0		0		45		48		
3:15	0		0		0		0			15:15	0		0		40		53		
3:30	0		0		0		0			15:30	0		0		33		63		
3:45	0	0	0	0	2	2	0	0	2	15:45	0	0	0	0	43	161	43	207	368
4:00	0		0		3		2			16:00	0		0		35		58		
4:15	0		0		1		1			16:15	0		0		42		63		
4:30	0		0		2		3			16:30	0		0		39		85		
4:45	0	0	0	0	6	12	2	8	20	16:45	0	0	0	0	48	164	80	286	450
5:00	0		0		4		1			17:00	0		0		43		151		
5:15	0		0		6		7			17:15	0		0		43		75		
5:30	0		0		5		3			17:30	0		0		31		52		
5:45	0	0	0	0	7	22	6	17	39	17:45	0	0	0	0	31	148	39	317	465
6:00	0		0		10		2			18:00	0		0		32		31		
6:15	0		0		22		4			18:15	0		0		25		20		
6:30	0		0		19		11			18:30	0		0		19		19		
6:45	0	0	0	0	66	117	11	28	145	18:45	0	0	0	0	13	89	20	90	179
7:00	0		0		68		14			19:00	0		0		21		15		
7:15	0		0		75		27			19:15	0		0		10		18		
7:30	0		0		76		42			19:30	0		0		11		15		
7:45	0	0	0	0	101	320	44	127	447	19:45	0	0	0	0	10	52	17	65	117
8:00	0		0		122		46			20:00	0		0		3		5		
8:15	0		0		93		50			20:15	0		0		11		15		
8:30	0		0		63		40			20:30	0		0		9		7		
8:45	0	0	0	0	63	341	28	164	505	20:45	0	0	0	0	10	33	8	35	68
9:00	0		0		55		42			21:00	0		0		7		8		
9:15	0		0		50		21			21:15	0		0		6		9		
9:30	0		0		37		34			21:30	0		0		6		16		
9:45	0	0	0	0	48	190	30	127	317	21:45	0	0	0	0	6	25	8	41	66
10:00	0		0		38		26			22:00	0		0		3		7		
10:15	0		0		31		32			22:15	0		0		5		5		
10:30	0		0		46		31			22:30	0		0		0		3		
10:45	0	0	0	0	33	148	42	131	279	22:45	0	0	0	0	1	9	5	20	29
11:00	0		0		40		27			23:00	0		0		2		0		
11:15	0		0		35		37			23:15	0		0		2		3		
11:30	0		0		35		46			23:30	0		0		1		1		
11:45	0	0	0	0	42	152	53	163	315	23:45	0	0	0	0	3	8	1	5	13
Total Vol.					1309		771		**2080**						1248		1659		**2907**

	Daily Totals				
	NB	SB	EB	WB	**Combined**
			2557	2430	**4987**

	AM			**PM**		
Split %	62.9%	37.1%	**41.7%**	42.9%	57.1%	**58.3%**
Peak Hour	7:30	11:45	**7:30**	12:45	16:30	**16:30**
Volume	392	247	**574**	213	391	**564**
P.H.F.	0.80	0.74	**0.85**	0.85	0.65	**0.73**

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Volumes for: Thursday, February 04, 2016 **CITY:** San Luis Obis **PROJECT:** SC0843

Location: ADT167 Prado between Higuera and City Line, Lat: 35°15'15.84"N; Long: 120°40'6.99"W **Prepared by AimTD LLC tel. 714 253 7888**

Weather conditions: Sunny

DAY 2

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		1		0			12:00	0		0		45		84		
0:15	0		0		1		1			12:15	0		0		53		59		
0:30	0		0		0		0			12:30	0		0		38		49		
0:45	0	0	0	0	0	2	0	1	3	12:45	0	0	0	0	61	197	58	250	447
1:00	0		0		0		0			13:00	0		0		50		42		
1:15	0		0		0		1			13:15	0		0		68		50		
1:30	0		0		1		1			13:30	0		0		41		39		
1:45	0	0	0	0	3	4	0	2	6	13:45	0	0	0	0	41	200	38	169	369
2:00	0		0		0		1			14:00	0		0		46		42		
2:15	0		0		1		0			14:15	0		0		36		45		
2:30	0		0		0		0			14:30	0		0		35		42		
2:45	0	0	0	0	1	2	0	1	3	14:45	0	0	0	0	63	180	56	185	365
3:00	0		0		1		0			15:00	0		0		45		47		
3:15	0		0		1		1			15:15	0		0		41		53		
3:30	0		0		0		0			15:30	0		0		33		62		
3:45	0	0	0	0	1	3	0	1	4	15:45	0	0	0	0	39	158	43	205	363
4:00	0		0		2		1			16:00	0		0		36		59		
4:15	0		0		2		0			16:15	0		0		42		59		
4:30	0		0		2		2			16:30	0		0		38		81		
4:45	0	0	0	0	5	11	0	3	14	16:45	0	0	0	0	46	162	81	280	442
5:00	0		0		0		2			17:00	0		0		44		138		
5:15	0		0		6		5			17:15	0		0		39		81		
5:30	0		0		7		8			17:30	0		0		33		64		
5:45	0	0	0	0	14	27	3	18	45	17:45	0	0	0	0	30	146	32	315	461
6:00	0		0		8		2			18:00	0		0		30		31		
6:15	0		0		21		6			18:15	0		0		25		20		
6:30	0		0		27		8			18:30	0		0		20		19		
6:45	0	0	0	0	64	120	14	30	150	18:45	0	0	0	0	13	88	20	90	178
7:00	0		0		54		26			19:00	0		0		22		15		
7:15	0		0		54		28			19:15	0		0		9		16		
7:30	0		0		60		31			19:30	0		0		11		17		
7:45	0	0	0	0	102	270	38	123	393	19:45	0	0	0	0	9	51	19	67	118
8:00	0		0		112		32			20:00	0		0		2		5		
8:15	0		0		67		40			20:15	0		0		12		15		
8:30	0		0		73		35			20:30	0		0		9		7		
8:45	0	0	0	0	58	310	35	142	452	20:45	0	0	0	0	11	34	7	34	68
9:00	0		0		46		48			21:00	0		0		8		8		
9:15	0		0		39		29			21:15	0		0		7		10		
9:30	0		0		22		33			21:30	0		0		6		16		
9:45	0	0	0	0	35	142	44	154	296	21:45	0	0	0	0	6	27	8	42	69
10:00	0		0		34		33			22:00	0		0		3		7		
10:15	0		0		36		31			22:15	0		0		6		4		
10:30	0		0		36		37			22:30	0		0		0		3		
10:45	0	0	0	0	39	145	37	138	283	22:45	0	0	0	0	1	10	5	19	29
11:00	0		0		32		38			23:00	0		0		1		0		
11:15	0		0		34		37			23:15	0		0		2		3		
11:30	0		0		35		44			23:30	0		0		1		1		
11:45	0	0	0	0	42	143	54	173	316	23:45	0	0	0	0	3	7	1	5	12
Total Vol.						1179		786	**1965**							1260		1661	**2921**

Daily Totals

NB	SB	EB	Side	Combined
		2439	2447	**4886**

	AM			PM		
Split %	60.0%	40.0%	**40.2%**	43.1%	56.9%	**59.8%**
Peak Hour	7:45	11:45	**7:45**	12:45	16:30	**16:30**
Volume	354	246	**499**	220	381	**548**
P.H.F.	0.79	0.73	**0.87**	0.81	0.69	**0.75**

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Volumes for: Wednesday, February 03, 2016 & Thursday, February 04, 2016 **CITY:** San Luis Obispo **PROJECT:** SC0843

Location: **ADT167 Prado between Higuera and City Line, Lat: 35°15'15.84"N; Long: 120°40'6.99"W**

Prepared by AimTD LLC tel. 714 253 7888

2-DAY AVERAGE

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
0:00	0		0		1		0			12:00	0		0		45		84		
0:15	0		0		1		1			12:15	0		0		52		60		
0:30	0		0		1		0			12:30	0		0		39		49		
0:45	0	0	0	0	0	3	1	2	5	12:45	0	0	0	0	61	197	56	249	446
1:00	0		0		0		0			13:00	0		0		49		42		
1:15	0		0		1		2			13:15	0		0		66		46		
1:30	0		0		1		1			13:30	0		0		42		40		
1:45	0	0	0	0	2	4	0	3	7	13:45	0	0	0	0	41	198	38	166	364
2:00	0		0		0		1			14:00	0		0		46		43		
2:15	0		0		1		0			14:15	0		0		34		45		
2:30	0		0		0		0			14:30	0		0		35		42		
2:45	0	0	0	0	2	3	0	1	4	14:45	0	0	0	0	61	176	56	186	362
3:00	0		0		1		0			15:00	0		0		45		48		
3:15	0		0		1		1			15:15	0		0		41		53		
3:30	0		0		0		0			15:30	0		0		33		63		
3:45	0	0	0	0	2	4	0	1	5	15:45	0	0	0	0	41	160	43	207	367
4:00	0		0		3		2			16:00	0		0		36		59		
4:15	0		0		2		1			16:15	0		0		42		61		
4:30	0		0		2		3			16:30	0		0		39		83		
4:45	0	0	0	0	6	13	1	7	20	16:45	0	0	0	0	47	164	81	284	448
5:00	0		0		2		2			17:00	0		0		44		145		
5:15	0		0		6		6			17:15	0		0		41		78		
5:30	0		0		6		6			17:30	0		0		32		58		
5:45	0	0	0	0	11	25	5	19	44	17:45	0	0	0	0	31	148	36	317	465
6:00	0		0		9		2			18:00	0		0		31		31		
6:15	0		0		22		5			18:15	0		0		25		20		
6:30	0		0		23		10			18:30	0		0		20		19		
6:45	0	0	0	0	65	119	13	30	149	18:45	0	0	0	0	13	89	20	90	179
7:00	0		0		61		20			19:00	0		0		22		15		
7:15	0		0		65		28			19:15	0		0		10		17		
7:30	0		0		68		37			19:30	0		0		11		16		
7:45	0	0	0	0	102	296	41	126	422	19:45	0	0	0	0	10	53	18	66	119
8:00	0		0		117		39			20:00	0		0		3		5		
8:15	0		0		80		45			20:15	0		0		12		15		
8:30	0		0		68		38			20:30	0		0		9		7		
8:45	0	0	0	0	61	326	32	154	480	20:45	0	0	0	0	11	35	8	35	70
9:00	0		0		51		45			21:00	0		0		8		8		
9:15	0		0		45		25			21:15	0		0		7		10		
9:30	0		0		30		34			21:30	0		0		6		16		
9:45	0	0	0	0	42	168	37	141	309	21:45	0	0	0	0	6	27	8	42	69
10:00	0		0		36		30			22:00	0		0		3		7		
10:15	0		0		34		32			22:15	0		0		6		5		
10:30	0		0		41		34			22:30	0		0		0		3		
10:45	0	0	0	0	36	147	40	136	283	22:45	0	0	0	0	1	10	5	20	30
11:00	0		0		36		33			23:00	0		0		2		0		
11:15	0		0		35		37			23:15	0		0		2		3		
11:30	0		0		35		45			23:30	0		0		1		1		
11:45	0	0	0	0	42	148	54	169	317	23:45	0	0	0	0	3	8	1	5	13
Total Vol.						1256		789	**2045**							1265		1667	**2932**

Daily Totals

NB	SB	EB	WB	Combined
		2521	2456	**4977**

	AM			PM		
Split %	61.4%	38.6%	**41.1%**	43.1%	56.9%	**58.9%**
Peak Hour	7:30	11:45	**7:45**	12:45	16:30	**16:30**
Volume	367	247	**530**	218	387	**558**
P.H.F.	0.78	0.74	**0.85**	0.83	0.67	**0.74**

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Appendix B – Multimodal Level of Service Analysis Sheets - Synchro

Lane Group	EBT	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	4	225	117	304	561	393	606
v/c Ratio	0.01	0.57	0.07	0.58	0.67	0.99	0.56
Control Delay	0.0	32.2	0.1	27.5	6.8	76.8	13.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	32.2	0.1	27.5	6.8	76.8	13.1
Queue Length 50th (ft)	0	80	0	105	0	158	134
Queue Length 95th (ft)	0	176	0	201	34	#484	337
Internal Link Dist (ft)	160	615		469			438
Turn Bay Length (ft)			180		370	490	
Base Capacity (vph)	799	900	1583	1499	1347	396	1697
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.25	0.07	0.20	0.42	0.99	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	183	2	96	0	243	449	338	520	1
Future Volume (veh/h)	0	0	1	183	2	96	0	243	449	338	520	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	4	223	2	0	0	304	0	393	605	1
Peak Hour Factor	0.25	0.25	0.25	0.82	0.82	0.82	0.80	0.80	0.80	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	7	299	3		3	401		439	1015	2
Arrive On Green	0.00	0.00	0.00	0.17	0.17	0.00	0.00	0.21	0.00	0.25	0.54	0.54
Sat Flow, veh/h	0	0	1585	1766	16	1585	1781	1870	1585	1781	1867	3
Grp Volume(v), veh/h	0	0	4	225	0	0	0	304	0	393	0	606
Grp Sat Flow(s),veh/h/ln	0	0	1585	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.2	7.2	0.0	0.0	0.0	9.2	0.0	12.8	0.0	13.2
Cycle Q Clear(g_c), s	0.0	0.0	0.2	7.2	0.0	0.0	0.0	9.2	0.0	12.8	0.0	13.2
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	7	302	0		3	401		439	0	1017
V/C Ratio(X)	0.00	0.00	0.59	0.75	0.00		0.00	0.76		0.89	0.00	0.60
Avail Cap(c_a), veh/h	0	0	711	1007	0		118	1679		444	0	1678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	29.9	23.8	0.0	0.0	0.0	22.2	0.0	21.9	0.0	9.3
Incr Delay (d2), s/veh	0.0	0.0	61.1	3.7	0.0	0.0	0.0	3.0	0.0	20.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.3	5.3	0.0	0.0	0.0	6.7	0.0	11.2	0.0	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	91.0	27.4	0.0	0.0	0.0	25.2	0.0	41.9	0.0	9.8
LnGrp LOS	A	A	F	C	A		A	C		D	A	A
Approach Vol, veh/h		4			225	A		304	A		999	
Approach Delay, s/veh		91.0			27.4			25.2			22.4	
Approach LOS		F			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.8	18.9		5.3	0.0	38.7		16.2				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	54.0		27.0	4.0	54.0		34.0				
Max Q Clear Time (g_c+I1), s	14.8	11.2		2.2	0.0	15.2		9.2				
Green Ext Time (p_c), s	0.0	1.7		0.0	0.0	4.0		1.2				

Intersection Summary			
HCM 6th Ctrl Delay		23.9	
HCM 6th LOS		C	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	76.0	67.3	67.3	76.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.45	2.70	2.74
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	14	8
Total Flow Rate (veh/h)	4	342	865	999
Effct. Green for Bike (s)	5.7	15.5	19.5	40.3
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	75	204	257	530
Bicycle Delay (s/bike)	70.4	61.4	58.2	41.2
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.71	3.27	2.77	2.56
Bicycle LOS	C	C	C	C

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	137	47	508	871	7
Future Vol, veh/h	20	137	47	508	871	7
Conflicting Peds, #/hr	1	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	80	80	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	154	59	635	990	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1433	501	1000	0	-	0
Stage 1	996	-	-	-	-	-
Stage 2	437	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	125	515	688	-	-	-
Stage 1	318	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	114	514	687	-	-	-
Mov Cap-2 Maneuver	114	-	-	-	-	-
Stage 1	290	-	-	-	-	-
Stage 2	618	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.7	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	687	-	114	514	-	-
HCM Lane V/C Ratio	0.086	-	0.197	0.299	-	-
HCM Control Delay (s)	10.7	-	44.2	15	-	-
HCM Lane LOS	B	-	E	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.7	1.2	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	52247.8	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	1379	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.92	
Delay for adq Gap	52250.44	
Avg Ped Delay (s)	52247.83	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	189.3	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	871	508
Ped Vol Crossed	1	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.98	0.80
Prob of Blocked Lane	0.85	0.56
Delay for adq Gap	175.43	21.89
Avg Ped Delay (s)	171.65	17.61

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	569	196	638	404	84	1012
v/c Ratio	0.51	0.33	0.46	0.50	0.22	0.55
Control Delay	23.7	5.3	20.4	4.5	11.2	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	5.3	20.4	4.5	11.2	13.9
Queue Length 50th (ft)	121	0	133	0	21	176
Queue Length 95th (ft)	87	0	138	11	42	228
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1407	706	1793	930	488	2477
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.28	0.36	0.43	0.17	0.41

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	273	94	453	287	77	931
Future Volume (veh/h)	273	94	453	287	77	931
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.93	0.99	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	569	196	638	404	84	1012
Peak Hour Factor	0.48	0.48	0.71	0.71	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	830	381	1538	641	372	2063
Arrive On Green	0.24	0.24	0.43	0.43	0.05	0.58
Sat Flow, veh/h	3456	1585	3647	1480	1781	3647
Grp Volume(v), veh/h	569	196	638	404	84	1012
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1480	1781	1777
Q Serve(g_s), s	9.2	6.6	7.6	13.1	1.5	10.2
Cycle Q Clear(g_c), s	9.2	6.6	7.6	13.1	1.5	10.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	830	381	1538	641	372	2063
V/C Ratio(X)	0.69	0.51	0.41	0.63	0.23	0.49
Avail Cap(c_a), veh/h	1522	698	2028	845	632	2840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	20.2	12.0	13.6	8.5	7.5
Incr Delay (d2), s/veh	1.0	1.1	0.4	2.3	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.5	0.2	4.9	7.5	0.8	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.2	21.3	12.4	15.9	8.6	7.9
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	765		1042			1096
Approach Delay, s/veh	22.0		13.8			8.0
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		41.6		19.7	9.0	32.5
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		49.0		27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		12.2		11.2	3.5	15.1
Green Ext Time (p_c), s		15.2		3.5	0.1	11.5

Intersection Summary	
HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	65.0	80.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None	Actuated
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	8.0	0.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	7.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	26	0	4
Ped. Right-Left Flow Rate (p/h)	3	0	81
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	5170.9	20296.0	6893.9
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	434.9	0.0	151.4
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	37.9	45.5	37.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.39	2.82	2.87
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	17	6
Total Flow Rate (veh/h)	765	1042	1096
Effct. Green for Bike (s)	24.6	29.8	39.3
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	541	655	864
Bicycle Delay (s/bike)	24.2	20.8	14.7
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	3.26	1.90	1.44
Bicycle LOS	C	B	A

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	51	695	74	87	1113
Future Vol, veh/h	21	51	695	74	87	1113
Conflicting Peds, #/hr	0	0	0	22	22	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	71	71	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	74	979	104	104	1325

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1924	564	0	0	1105	0
Stage 1	1053	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	78	402	-	-	348	-
Stage 1	229	-	-	-	-	-
Stage 2	360	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	53	394	-	-	341	-
Mov Cap-2 Maneuver	53	-	-	-	-	-
Stage 1	224	-	-	-	-	-
Stage 2	250	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	52.5	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	53	394	341	-
HCM Lane V/C Ratio	-	-	0.574	0.188	0.304	-
HCM Control Delay (s)	-	-	140.6	16.2	20.1	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	2.3	0.7	1.3	-

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	780.0	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	695	1113
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	0.96	1.00
Prob of Blocked Lane	0.67	0.93
Delay for adq Gap	127.83	659.88
Avg Ped Delay (s)	123.28	656.73

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	3647880.8
Level of Service	F

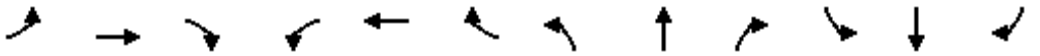
Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	1808
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	3647882.75
Avg Ped Delay (s)	3647880.75

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	59	112	153	10	54	960	16	1329	24
v/c Ratio	0.16	0.20	0.41	0.02	0.18	0.35	0.05	0.96	0.03
Control Delay	20.2	2.0	24.8	0.0	10.7	12.3	10.4	42.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	2.0	24.8	0.0	10.7	12.3	10.4	42.9	0.1
Queue Length 50th (ft)	20	0	57	0	13	104	4	~417	0
Queue Length 95th (ft)	44	7	67	0	26	148	12	#490	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	465	641	455	623	539	2845	453	1385	687
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.17	0.34	0.02	0.10	0.34	0.04	0.96	0.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	13	93	78	14	6	43	735	24	13	1103	20
Future Volume (veh/h)	36	13	93	78	14	6	43	735	24	13	1103	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.94	0.98		0.95	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	16	112	130	23	10	54	930	30	16	1329	24
Peak Hour Factor	0.83	0.83	0.83	0.60	0.60	0.60	0.79	0.79	0.79	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	20	434	97	10	441	236	2353	76	325	1482	634
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.06	0.46	0.46	0.01	0.42	0.42
Sat Flow, veh/h	0	70	1490	0	33	1512	1781	5074	163	1781	3554	1520
Grp Volume(v), veh/h	59	0	112	153	0	10	54	623	337	16	1329	24
Grp Sat Flow(s),veh/h/ln	70	0	1490	33	0	1512	1781	1702	1834	1781	1777	1520
Q Serve(g_s), s	0.0	0.0	4.0	0.0	0.0	0.3	1.1	8.2	8.3	0.4	23.9	0.6
Cycle Q Clear(g_c), s	20.0	0.0	4.0	20.0	0.0	0.3	1.1	8.2	8.3	0.4	23.9	0.6
Prop In Lane	0.73		1.00	0.85		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	434	107	0	441	236	1579	850	325	1482	634
V/C Ratio(X)	0.53	0.00	0.26	1.43	0.00	0.02	0.23	0.39	0.40	0.05	0.90	0.04
Avail Cap(c_a), veh/h	111	0	434	107	0	441	652	1579	850	565	1502	643
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	0.0	18.6	32.5	0.0	17.3	14.5	12.1	12.1	11.5	18.6	11.8
Incr Delay (d2), s/veh	6.1	0.0	0.4	240.5	0.0	0.0	1.0	0.3	0.5	0.0	7.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	0.0	2.5	16.0	0.0	0.2	0.8	4.7	5.1	0.2	14.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.7	0.0	19.0	273.0	0.0	17.4	15.6	12.4	12.6	11.5	26.5	11.9
LnGrp LOS	C	A	B	F	A	B	B	B	B	B	C	B
Approach Vol, veh/h		171			163			1014			1369	
Approach Delay, s/veh		24.1			257.4			12.6			26.1	
Approach LOS		C			F			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	34.6		25.0	5.8	37.8		25.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	29.0		20.0	10.0	29.0		20.0				
Max Q Clear Time (g_c+I1), s	3.1	25.9		22.0	2.4	10.3		22.0				
Green Ext Time (p_c), s	0.2	2.7		0.0	0.0	9.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		34.8	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	4	12	0	8
Ped. Right-Left Flow Rate (p/h)	4	2	0	37
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73706.7	9989.4	42095.1	11094.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2301.5	1312.9	0.0	278.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	2.00	3.09	3.09
Pedestrian Crosswalk LOS	B	B	C	C

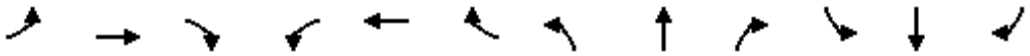
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	171	163	1014	1369
Effct. Green for Bike (s)	20.9	20.9	41.6	29.6
Cross Street Width (ft)	84.5	96.0	36.1	37.9
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	492	492	979	696
Bicycle Delay (s/bike)	24.2	24.2	11.1	18.1
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.13	3.30	2.67	2.20
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	135	196	151	194	183	47	484	175	530	912
v/c Ratio	2.05	0.40	0.23	0.55	0.43	0.20	0.49	0.25	0.85	1.01
Control Delay	538.3	36.3	38.6	32.2	8.7	45.5	42.6	3.6	59.8	75.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	538.3	36.3	38.6	32.2	8.7	45.5	42.6	3.6	59.8	75.0
Queue Length 50th (ft)	~154	110	47	86	0	30	114	0	193	~413
Queue Length 95th (ft)	#253	165	71	147	45	67	156	34	#326	#617
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	66	494	933	476	531	320	1152	737	622	905
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.05	0.40	0.16	0.41	0.34	0.15	0.42	0.24	0.85	1.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	117	34	125	60	253	41	421	152	477	767	54
Future Volume (veh/h)	104	117	34	125	60	253	41	421	152	477	767	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	152	44	151	247	188	47	484	175	530	852	60
Peak Hour Factor	0.77	0.77	0.77	0.83	0.83	0.83	0.87	0.87	0.87	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	223	64	776	408	335	213	1076	667	685	969	68
Arrive On Green	0.16	0.16	0.16	0.22	0.22	0.22	0.12	0.21	0.21	0.20	0.29	0.29
Sat Flow, veh/h	1781	1378	399	3563	1870	1539	1781	5106	1526	3456	3352	236
Grp Volume(v), veh/h	135	0	196	151	247	188	47	484	175	530	452	460
Grp Sat Flow(s),veh/h/ln	1781	0	1777	1781	1870	1539	1781	1702	1526	1728	1777	1811
Q Serve(g_s), s	5.8	0.0	8.8	2.9	10.1	9.3	2.0	7.0	6.3	12.4	20.6	20.6
Cycle Q Clear(g_c), s	5.8	0.0	8.8	2.9	10.1	9.3	2.0	7.0	6.3	12.4	20.6	20.6
Prop In Lane	1.00		0.22	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	288	0	287	776	408	335	213	1076	667	685	514	524
V/C Ratio(X)	0.47	0.00	0.68	0.19	0.61	0.56	0.22	0.45	0.26	0.77	0.88	0.88
Avail Cap(c_a), veh/h	628	0	627	1256	660	543	419	1500	794	812	522	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.4	0.0	33.6	27.2	30.0	29.6	33.9	29.3	15.7	32.3	28.8	28.8
Incr Delay (d2), s/veh	0.9	0.0	2.1	0.4	5.2	5.2	0.2	1.4	1.0	7.2	18.9	18.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	0.0	7.0	2.2	8.4	6.6	1.5	5.1	5.7	9.3	16.1	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.2	0.0	35.7	27.6	35.2	34.9	34.0	30.6	16.6	39.5	47.7	47.5
LnGrp LOS	C	A	D	C	D	C	C	C	B	D	D	D
Approach Vol, veh/h		331			586			706			1442	
Approach Delay, s/veh		34.7			33.1			27.4			44.6	
Approach LOS		C			C			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		18.7	14.2	28.6		23.5	20.9	21.9				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		30.0	20.0	25.0		30.0	20.0	25.0				
Max Q Clear Time (g_c+I1), s		10.8	4.0	22.6		12.1	14.4	9.0				
Green Ext Time (p_c), s		1.3	0.0	2.0		6.4	2.5	8.4				

Intersection Summary												
HCM 6th Ctrl Delay			37.4									
HCM 6th LOS			D									

Notes

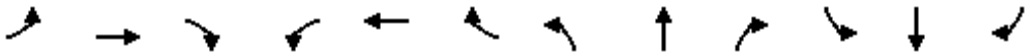
User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	2
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	7	3	5
Ped. Right-Left Flow Rate (p/h)	3	9	2	7
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53583.8	21032.3	2458.1	32730.7
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1647.1	593.9	1233.7	586.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	51.0	51.0	53.8	53.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.13	2.97	2.98	3.36
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	5	12	6
Total Flow Rate (veh/h)	331	528	706	1442
Effct. Green for Bike (s)	30.3	21.3	21.4	28.8
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	493	346	348	468
Bicycle Delay (s/bike)	35.0	42.1	42.2	36.2
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.38	3.62	1.66	2.79
Bicycle LOS	C	D	B	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	110	99	92	8	52	237	599	36	920
v/c Ratio	0.21	0.33	0.38	0.03	0.14	0.44	0.21	0.11	0.53
Control Delay	34.0	12.7	38.0	26.2	0.8	33.8	15.3	37.4	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.0	12.7	38.0	26.2	0.8	33.8	15.3	37.4	24.0
Queue Length 50th (ft)	22	6	36	3	0	47	43	7	113
Queue Length 95th (ft)	57	37	72	10	0	107	139	28	264
Internal Link Dist (ft)		461		455			697		1255
Turn Bay Length (ft)	250		295		50	300		160	
Base Capacity (vph)	964	796	495	883	811	2134	3549	800	1727
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.12	0.19	0.01	0.06	0.11	0.17	0.04	0.53

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	12	68	57	5	32	199	495	8	34	757	117
Future Volume (veh/h)	89	12	68	57	5	32	199	495	8	34	757	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	15	84	92	8	52	237	589	10	36	797	123
Peak Hour Factor	0.81	0.81	0.81	0.62	0.62	0.62	0.84	0.84	0.84	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	293	34	189	141	251	208	394	2049	35	104	1391	213
Arrive On Green	0.08	0.14	0.14	0.08	0.13	0.13	0.11	0.40	0.40	0.03	0.31	0.31
Sat Flow, veh/h	3456	241	1351	1781	1870	1550	3456	5169	88	3456	4450	681
Grp Volume(v), veh/h	110	0	99	92	8	52	237	387	212	36	608	312
Grp Sat Flow(s),veh/h/ln	1728	0	1592	1781	1870	1550	1728	1702	1853	1728	1702	1728
Q Serve(g_s), s	1.8	0.0	3.4	3.0	0.2	1.8	3.9	4.6	4.6	0.6	8.9	9.0
Cycle Q Clear(g_c), s	1.8	0.0	3.4	3.0	0.2	1.8	3.9	4.6	4.6	0.6	8.9	9.0
Prop In Lane	1.00		0.85	1.00		1.00	1.00		0.05	1.00		0.39
Lane Grp Cap(c), veh/h	293	0	223	141	251	208	394	1349	734	104	1064	540
V/C Ratio(X)	0.38	0.00	0.44	0.65	0.03	0.25	0.60	0.29	0.29	0.35	0.57	0.58
Avail Cap(c_a), veh/h	1050	0	806	541	947	785	2333	2126	1157	875	1264	641
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	0.0	23.4	26.5	22.3	23.0	25.0	12.2	12.2	28.2	17.0	17.1
Incr Delay (d2), s/veh	0.8	0.0	1.4	5.1	0.1	0.6	1.5	0.3	0.6	2.0	1.4	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	2.3	2.5	0.2	1.2	2.7	2.6	3.0	0.5	5.5	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	0.0	24.7	31.6	22.3	23.6	26.5	12.5	12.8	30.1	18.5	19.9
LnGrp LOS	C	A	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		209			152			836			956	
Approach Delay, s/veh		25.6			28.3			16.5			19.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	24.5	9.7	13.3	6.8	29.5	10.0	13.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	40.0	22.0	18.0	30.0	15.0	37.0	18.0	30.0
Max Q Clear Time (g_c+I1), s	5.9	11.0	5.0	5.4	2.6	6.6	3.8	3.8
Green Ext Time (p_c), s	1.0	7.1	0.2	0.6	0.1	8.6	0.3	0.2

Intersection Summary	
HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	90.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	7.0	12.0	7.0	7.0
Right Corner Size B (ft)	13.0	10.0	7.0	7.0
Right Corner Curb Radius (ft)	30.0	30.0	30.0	30.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	6	3	1	6
Ped. Right-Left Flow Rate (p/h)	1	1	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73707.8	42094.1	117920.4	34653.2
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	919.7	2299.7	0.1	895.3
Crosswalk Circulation Code	A	A	F	A
Pedestrian Delay (s/p)	56.8	56.8	65.5	56.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.50	2.39	3.08	3.07
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	1	0	4
Total Flow Rate (veh/h)	209	152	836	956
Effct. Green for Bike (s)	9.9	11.0	39.1	24.4
Cross Street Width (ft)	100.0	99.0	68.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	151	168	597	373
Bicycle Delay (s/bike)	56.0	55.0	32.2	43.5
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.43	2.04	1.77	1.72
Bicycle LOS	C	B	B	B

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	23	717	80	27	894
Future Vol, veh/h	16	23	717	80	27	894
Conflicting Peds, #/hr	0	0	0	10	10	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	175	-	50	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	82	82	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	33	874	98	29	951

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1418	447	0	0	982	0
Stage 1	884	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	128	559	-	-	699	-
Stage 1	364	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	121	554	-	-	692	-
Mov Cap-2 Maneuver	301	-	-	-	-	-
Stage 1	360	-	-	-	-	-
Stage 2	529	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.4	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	301	554	692	-
HCM Lane V/C Ratio	-	-	0.076	0.059	0.042	-
HCM Control Delay (s)	-	-	17.9	11.9	10.4	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	0.1	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	448817.1
Level of Service	F

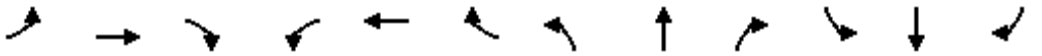
Crosswalk	
Length (ft)	85
Lanes Crossed	4
Veh Vol Crossed	1611
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	27.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.95
Delay for adq Gap	448819.34
Avg Ped Delay (s)	448817.09

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	448817.1
Level of Service	F

Crosswalk	
Length (ft)	85
Lanes Crossed	4
Veh Vol Crossed	1611
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	27.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.95
Delay for adq Gap	448819.34
Avg Ped Delay (s)	448817.09

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	9	77	59	58	37	1081	63	28	802	26
v/c Ratio	0.18	0.04	0.28	0.34	0.24	0.07	0.42	0.06	0.07	0.31	0.02
Control Delay	34.7	30.0	6.9	39.6	13.0	2.7	6.9	1.3	5.8	8.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	34.7	30.0	6.9	39.6	13.0	2.7	7.0	1.3	5.8	8.8	0.0
Queue Length 50th (ft)	17	5	0	35	5	1	31	0	2	85	0
Queue Length 95th (ft)	23	10	7	47	24	7	365	17	19	241	0
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	450	627	594	471	573	591	2553	1138	460	2569	1153
Starvation Cap Reductn	0	0	0	0	0	0	539	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.01	0.13	0.13	0.10	0.06	0.54	0.06	0.06	0.31	0.02

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	6	51	47	6	40	31	897	52	27	778	25
Future Volume (veh/h)	19	6	51	47	6	40	31	897	52	27	778	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	9	0	59	8	50	37	1081	63	28	802	26
Peak Hour Factor	0.66	0.66	0.66	0.80	0.80	0.80	0.83	0.83	0.83	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	152		184	18	113	555	2568	1121	477	2549	1121
Arrive On Green	0.08	0.08	0.00	0.08	0.08	0.08	0.07	1.00	1.00	0.03	0.72	0.72
Sat Flow, veh/h	1342	1870	1585	1401	223	1391	1781	3554	1551	1781	3554	1563
Grp Volume(v), veh/h	29	9	0	59	0	58	37	1081	63	28	802	26
Grp Sat Flow(s),veh/h/ln	1342	1870	1585	1401	0	1614	1781	1777	1551	1781	1777	1563
Q Serve(g_s), s	2.0	0.4	0.0	3.9	0.0	3.3	0.5	0.0	0.0	0.4	7.8	0.5
Cycle Q Clear(g_c), s	5.3	0.4	0.0	4.3	0.0	3.3	0.5	0.0	0.0	0.4	7.8	0.5
Prop In Lane	1.00		1.00	1.00		0.86	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	139	152		184	0	132	555	2568	1121	477	2549	1121
V/C Ratio(X)	0.21	0.06		0.32	0.00	0.44	0.07	0.42	0.06	0.06	0.31	0.02
Avail Cap(c_a), veh/h	482	630		542	0	544	665	2568	1121	597	2549	1121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	40.3	0.0	42.2	0.0	41.6	3.3	0.0	0.0	3.1	4.9	3.9
Incr Delay (d2), s/veh	0.3	0.1	0.0	0.4	0.0	0.9	0.0	0.5	0.1	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.4	0.0	2.4	0.0	2.4	0.2	0.3	0.0	0.2	3.9	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	40.3	0.0	42.6	0.0	42.4	3.3	0.5	0.1	3.2	5.2	3.9
LnGrp LOS	D	D		D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		38	A		117			1181			856	
Approach Delay, s/veh		43.4			42.5			0.5			5.1	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	74.1		12.7	7.6	74.6		12.7				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	9.0	38.0		32.0	9.0	38.0		32.0				
Max Q Clear Time (g_c+I1), s	2.5	9.8		6.3	2.4	2.0		7.3				
Green Ext Time (p_c), s	0.0	14.7		0.2	0.0	23.7		0.0				

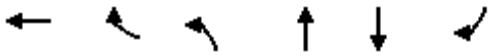
Intersection Summary		
HCM 6th Ctrl Delay		5.3
HCM 6th LOS		A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	12600.0	0.0	589765.2
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	10980.0
Crosswalk Circulation Code	-	-	-	A
Pedestrian Delay (s/p)	39.8	39.8	39.8	39.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.48	2.09	3.09	2.96
Pedestrian Crosswalk LOS	B	B	C	C

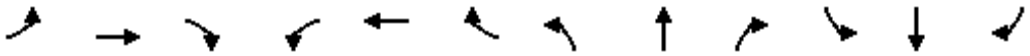
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	4
Total Flow Rate (veh/h)	115	117	1181	856
Effct. Green for Bike (s)	11.7	11.7	68.5	69.0
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	246	246	1442	1453
Bicycle Delay (s/bike)	36.5	36.5	3.7	3.6
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.07	3.13	1.57	1.77
Bicycle LOS	C	C	B	B



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	451	265	26	862	653	374
v/c Ratio	0.78	0.47	0.22	0.44	0.37	0.42
Control Delay	36.7	17.5	51.5	7.7	14.9	4.2
Queue Delay	0.0	0.0	0.0	0.1	0.3	0.4
Total Delay	36.7	17.5	51.5	7.8	15.2	4.5
Queue Length 50th (ft)	238	82	15	62	71	0
Queue Length 95th (ft)	258	109	m26	165	130	51
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	762	723	125	1961	1787	896
Starvation Cap Reductn	0	0	0	0	558	169
Spillback Cap Reductn	0	5	0	255	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.37	0.21	0.51	0.53	0.51

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



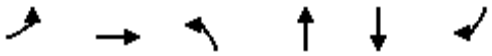
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	368	2	217	22	724	0	0	588	337
Future Volume (veh/h)	0	0	0	368	2	217	22	724	0	0	588	337
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				449	2	265	26	862	0	0	653	374
Peak Hour Factor				0.82	0.82	0.82	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				528	2	472	30	2087	0	0	1873	763
Arrive On Green				0.32	0.32	0.32	0.02	0.78	0.00	0.00	1.00	1.00
Sat Flow, veh/h				1661	7	1485	1668	3647	0	0	3647	1448
Grp Volume(v), veh/h				451	0	265	26	862	0	0	653	374
Grp Sat Flow(s),veh/h/ln				1669	0	1485	1668	1777	0	0	1777	1448
Q Serve(g_s), s				24.0	0.0	14.1	1.5	7.4	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				24.0	0.0	14.1	1.5	7.4	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				531	0	472	30	2087	0	0	1873	763
V/C Ratio(X)				0.85	0.00	0.56	0.86	0.41	0.00	0.00	0.35	0.49
Avail Cap(c_a), veh/h				773	0	688	123	2087	0	0	1873	763
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.87	0.87	0.00	0.00	0.96	0.96
Uniform Delay (d), s/veh				30.3	0.0	26.9	46.2	5.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				6.1	0.0	1.0	40.7	0.5	0.0	0.0	0.5	2.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				15.5	0.0	8.7	1.7	3.7	0.0	0.0	0.2	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				36.4	0.0	27.9	86.9	5.6	0.0	0.0	0.5	2.2
LnGrp LOS				D	A	C	F	A	A	A	A	A
Approach Vol, veh/h					716			888			1027	
Approach Delay, s/veh					33.3			8.0			1.1	
Approach LOS					C			A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	5.7	55.1				60.8		34.2				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	7.0	31.0				42.0		44.0				
Max Q Clear Time (g_c+I1), s	3.5	2.0				9.4		26.0				
Green Ext Time (p_c), s	0.0	6.7				6.5		4.2				

Intersection Summary			
HCM 6th Ctrl Delay			12.2
HCM 6th LOS			B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.90	2.25	2.89	2.94
Pedestrian Crosswalk LOS	B	B	C	C

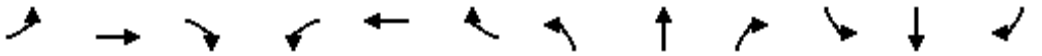
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	1	5
Total Flow Rate (veh/h)	0	716	888	1027
Effct. Green for Bike (s)	0.0	33.3	52.7	48.0
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	701	1109	1011
Bicycle Delay (s/bike)	0.0	20.0	9.4	11.7
Bicycle Compliance		Fair	Good	Fair
Bicycle LOS Score	0.00	2.72	1.66	1.52
Bicycle LOS		C	B	B



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	346	324	73	399	973	108
v/c Ratio	0.82	0.66	0.45	0.18	0.54	0.09
Control Delay	48.6	25.3	47.9	8.4	22.5	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	25.3	47.9	8.4	22.5	0.9
Queue Length 50th (ft)	196	108	42	53	284	5
Queue Length 95th (ft)	290	191	72	66	275	m0
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	475	535	204	2207	1791	1201
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.61	0.36	0.18	0.54	0.09

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	443	0	140	0	0	0	58	315	0	0	876	97
Future Volume (veh/h)	443	0	140	0	0	0	58	315	0	0	876	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	335	244	161	0	0	0	73	399	0	0	973	108
Peak Hour Factor	0.87	0.87	0.87	0.25	0.25	0.25	0.79	0.79	0.79	0.90	0.90	0.90
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	443	279	184	0	2	0	93	2235	0	0	1907	1172
Arrive On Green	0.27	0.27	0.27	0.00	0.00	0.00	0.06	0.63	0.00	0.00	0.54	0.54
Sat Flow, veh/h	1668	1052	694	0	1870	0	1668	3647	0	0	3647	1449
Grp Volume(v), veh/h	335	0	405	0	0	0	73	399	0	0	973	108
Grp Sat Flow(s),veh/h/ln	1668	0	1745	0	1870	0	1668	1777	0	0	1777	1449
Q Serve(g_s), s	17.5	0.0	21.1	0.0	0.0	0.0	4.1	4.5	0.0	0.0	16.6	1.5
Cycle Q Clear(g_c), s	17.5	0.0	21.1	0.0	0.0	0.0	4.1	4.5	0.0	0.0	16.6	1.5
Prop In Lane	1.00		0.40	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	443	0	464	0	2	0	93	2235	0	0	1907	1172
V/C Ratio(X)	0.76	0.00	0.87	0.00	0.00	0.00	0.79	0.18	0.00	0.00	0.51	0.09
Avail Cap(c_a), veh/h	509	0	533	0	79	0	202	2235	0	0	1907	1172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.94	0.94
Uniform Delay (d), s/veh	32.0	0.0	33.4	0.0	0.0	0.0	44.3	7.4	0.0	0.0	14.0	2.0
Incr Delay (d2), s/veh	5.5	0.0	13.5	0.0	0.0	0.0	13.7	0.2	0.0	0.0	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.1	0.0	15.7	0.0	0.0	0.0	3.6	2.6	0.0	0.0	10.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	0.0	46.9	0.0	0.0	0.0	58.0	7.5	0.0	0.0	15.0	2.2
LnGrp LOS	D	A	D	A	A	A	E	A	A	A	B	A
Approach Vol, veh/h		740			0			472			1081	
Approach Delay, s/veh		42.7			0.0			15.3			13.7	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.8	57.0		29.2		65.8		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	11.5	33.0		29.0		48.0		4.0				
Max Q Clear Time (g_c+I1), s	6.1	18.6		23.1		6.5		0.0				
Green Ext Time (p_c), s	0.1	6.0		2.2		2.7		0.0				

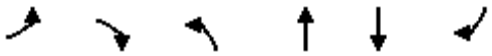
Intersection Summary			
HCM 6th Ctrl Delay		23.4	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.45	1.43	2.78	2.89
Pedestrian Crosswalk LOS	B	A	C	C

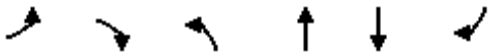
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	2	6
Total Flow Rate (veh/h)	670	0	472	1081
Effct. Green for Bike (s)	25.7	4.7	59.3	48.1
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	541	99	1248	1013
Bicycle Delay (s/bike)	25.3	42.9	6.7	11.6
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.74	1.39	1.73	2.22
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	935	61	21	394	241	329
v/c Ratio	0.61	0.08	0.06	0.63	0.43	0.28
Control Delay	16.7	8.9	11.2	19.8	18.9	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	8.9	11.2	19.8	18.9	2.3
Queue Length 50th (ft)	103	5	5	108	60	0
Queue Length 95th (ft)	#311	36	15	170	144	63
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		100	200			
Base Capacity (vph)	1535	777	443	1809	1657	1176
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.08	0.05	0.22	0.15	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	898	59	19	355	231	316
Future Volume (veh/h)	898	59	19	355	231	316
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	935	61	21	394	241	329
Peak Hour Factor	0.96	0.96	0.90	0.90	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1356	647	291	713	454	994
Arrive On Green	0.39	0.39	0.03	0.38	0.24	0.24
Sat Flow, veh/h	3456	1648	1781	1870	1870	1533
Grp Volume(v), veh/h	935	61	21	394	241	329
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1533
Q Serve(g_s), s	11.9	1.2	0.4	8.8	5.9	5.3
Cycle Q Clear(g_c), s	11.9	1.2	0.4	8.8	5.9	5.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1356	647	291	713	454	994
V/C Ratio(X)	0.69	0.09	0.07	0.55	0.53	0.33
Avail Cap(c_a), veh/h	1630	777	582	1270	1764	2068
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.4	10.2	13.5	12.9	17.4	4.5
Incr Delay (d2), s/veh	1.9	0.2	0.1	0.8	1.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.9	0.1	0.3	5.3	4.2	6.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.3	10.3	13.6	13.7	18.7	4.7
LnGrp LOS	B	B	B	B	B	A
Approach Vol, veh/h	996			415	570	
Approach Delay, s/veh	15.0			13.7	10.7	
Approach LOS	B			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		26.2		26.8	7.3	18.9
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0		25.0	10.0	50.0
Max Q Clear Time (g_c+I1), s		10.8		13.9	2.4	7.9
Green Ext Time (p_c), s		2.8		6.9	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	10.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	1	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196586.8	32400.0	294852.8
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	849.0	8666.9	0.0
Crosswalk Circulation Code	A	A	-
Pedestrian Delay (s/p)	43.8	43.8	51.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.70	2.30	2.76
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	3	6	4
Total Flow Rate (veh/h)	996	415	570
Effct. Green for Bike (s)	25.7	19.4	17.4
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	499	377	338
Bicycle Delay (s/bike)	29.0	34.0	35.6
Bicycle Compliance	Fair	Poor	Poor
Bicycle LOS Score	1.86	1.97	2.21
Bicycle LOS	B	B	B

Intersection	
Int Delay, s/veh	6.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	98	996	250	59	474
Future Vol, veh/h	74	98	996	250	59	474
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	100	-	-	215	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	95	95	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	79	104	1048	263	61	494

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1549	656	0	0	1311	0
Stage 1	1180	-	-	-	-	-
Stage 2	369	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	105	408	-	-	524	-
Stage 1	254	-	-	-	-	-
Stage 2	670	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	93	408	-	-	524	-
Mov Cap-2 Maneuver	93	-	-	-	-	-
Stage 1	254	-	-	-	-	-
Stage 2	592	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	67.8	0	1.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	93	408	524	-
HCM Lane V/C Ratio	-	-	0.846	0.256	0.117	-
HCM Control Delay (s)	-	-	135.4	16.8	12.8	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	4.6	1	0.4	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	5711.6
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	1470
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.86
Delay for adq Gap	5714.05
Avg Ped Delay (s)	5711.61

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	23223.8
Level of Service	F

Crosswalk	
Length (ft)	68
Lanes Crossed	4
Veh Vol Crossed	1470
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.43
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.90
Delay for adq Gap	23226.29
Avg Ped Delay (s)	23223.84

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	84	55	1224	38	535
v/c Ratio	0.29	0.19	0.48	0.13	0.20
Control Delay	29.2	9.7	5.9	6.5	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	9.7	5.9	6.5	4.6
Queue Length 50th (ft)	29	0	80	4	29
Queue Length 95th (ft)	79	29	235	24	91
Internal Link Dist (ft)	742		269		1054
Turn Bay Length (ft)		170		170	
Base Capacity (vph)	875	798	3046	345	3183
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.10	0.07	0.40	0.11	0.17

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	81	53	803	287	35	492
Future Volume (veh/h)	81	53	803	287	35	492
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	55	902	322	38	535
Peak Hour Factor	0.96	0.96	0.89	0.89	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	199	177	1758	625	366	2449
Arrive On Green	0.11	0.11	0.69	0.69	0.69	0.69
Sat Flow, veh/h	1781	1585	2645	907	456	3647
Grp Volume(v), veh/h	84	55	627	597	38	535
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1681	456	1777
Q Serve(g_s), s	2.4	1.8	9.4	9.5	2.4	3.0
Cycle Q Clear(g_c), s	2.4	1.8	9.4	9.5	11.9	3.0
Prop In Lane	1.00	1.00		0.54	1.00	
Lane Grp Cap(c), veh/h	199	177	1224	1158	366	2449
V/C Ratio(X)	0.42	0.31	0.51	0.52	0.10	0.22
Avail Cap(c_a), veh/h	968	861	1931	1827	548	3862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.9	22.6	4.1	4.1	7.0	3.1
Incr Delay (d2), s/veh	0.5	0.4	0.9	1.0	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	1.2	3.0	2.9	0.4	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.4	22.9	5.0	5.1	7.3	3.3
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	139		1224			573
Approach Delay, s/veh	23.2		5.1			3.5
Approach LOS	C		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		44.0			44.0	11.2
Change Period (Y+Rc), s		6.0			6.0	5.0
Max Green Setting (Gmax), s		60.0			60.0	30.0
Max Q Clear Time (g_c+I1), s		11.5			13.9	4.4
Green Ext Time (p_c), s		26.6			10.4	0.3

Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

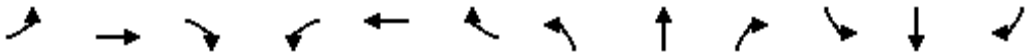
Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	1	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	2	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	4620.9	16173.2	10746.5
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	2052.3	0.0	3178.8
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	42.8	40.1	42.8
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.18	2.92	2.71
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	5	6
Total Flow Rate (veh/h)	139	1224	573
Effct. Green for Bike (s)	10.5	48.4	48.4
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	208	958	958
Bicycle Delay (s/bike)	40.6	13.7	13.7
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	1.21	2.20	1.95
Bicycle LOS	A	B	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	36	28	154	155	338	17	341	547	329	302
v/c Ratio	0.18	0.11	0.50	0.50	0.60	0.13	0.49	0.66	0.57	0.16
Control Delay	37.7	0.9	38.8	38.7	9.1	46.4	34.2	7.6	33.3	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	0.9	38.8	38.7	9.1	46.4	34.2	7.6	33.3	13.8
Queue Length 50th (ft)	17	0	70	70	0	8	78	34	131	33
Queue Length 95th (ft)	50	0	164	165	55	37	168	82	#407	120
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		100	165	
Base Capacity (vph)	388	407	1089	1095	1128	252	1834	1326	573	2465
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.07	0.14	0.14	0.30	0.07	0.19	0.41	0.57	0.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	13	25	253	7	284	16	321	514	296	264	8
Future Volume (veh/h)	19	13	25	253	7	284	16	321	514	296	264	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	15	28	307	0	0	17	341	547	329	293	9
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.94	0.94	0.94	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	48	34	68	445	0		35	1404	812	386	2082	64
Arrive On Green	0.05	0.05	0.05	0.13	0.00	0.00	0.02	0.40	0.40	0.22	0.59	0.59
Sat Flow, veh/h	1060	757	1516	3563	0	1585	1781	3554	1553	1781	3516	108
Grp Volume(v), veh/h	36	0	28	307	0	0	17	341	547	329	148	154
Grp Sat Flow(s),veh/h/ln	1817	0	1516	1781	0	1585	1781	1777	1553	1781	1777	1847
Q Serve(g_s), s	1.5	0.0	1.4	6.4	0.0	0.0	0.7	5.0	20.4	13.8	2.9	2.9
Cycle Q Clear(g_c), s	1.5	0.0	1.4	6.4	0.0	0.0	0.7	5.0	20.4	13.8	2.9	2.9
Prop In Lane	0.58		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	82	0	68	445	0		35	1404	812	386	1052	1094
V/C Ratio(X)	0.44	0.00	0.41	0.69	0.00		0.48	0.24	0.67	0.85	0.14	0.14
Avail Cap(c_a), veh/h	350	0	292	2284	0		251	1823	995	571	1052	1094
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	0.0	36.2	32.7	0.0	0.0	37.8	15.8	13.9	29.3	7.1	7.1
Incr Delay (d2), s/veh	1.4	0.0	1.5	0.7	0.0	0.0	3.8	0.2	2.3	8.9	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.0	0.9	4.7	0.0	0.0	0.6	3.4	13.6	10.6	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.6	0.0	37.7	33.4	0.0	0.0	41.6	16.0	16.2	38.2	7.2	7.2
LnGrp LOS	D	A	D	C	A		D	B	B	D	A	A
Approach Vol, veh/h		64			307	A		905			631	
Approach Delay, s/veh		37.7			33.4			16.6			23.4	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.4	35.3		8.0	5.0	50.7		14.3				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	25.0	40.0		15.0	11.0	40.0		50.0				
Max Q Clear Time (g_c+I1), s	15.8	22.4		3.5	2.7	4.9		8.4				
Green Ext Time (p_c), s	1.1	8.5		0.1	0.0	3.5		0.8				

Intersection Summary		
HCM 6th Ctrl Delay		22.2
HCM 6th LOS		C

Notes

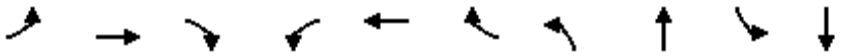
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

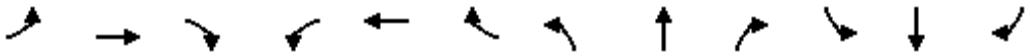
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	0	6	1	1
Ped. Right-Left Flow Rate (p/h)	0	3	3	1
Ped. R. Sidewalk Flow Rate (p/h)	1	1	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	117946.6	49123.9	45313.5	294866.4
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	1678.8	493.8
Crosswalk Circulation Code	-	F	A	A
Pedestrian Delay (s/p)	65.7	65.7	65.7	65.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.03	2.94	3.29	2.67
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	4	2	4	9
Total Flow Rate (veh/h)	64	647	905	631
Effct. Green for Bike (s)	8.9	15.0	16.0	44.7
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	121	204	218	608
Bicycle Delay (s/bike)	65.0	59.3	58.5	35.8
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.71	3.64	2.00	1.76
Bicycle LOS	C	D	B	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	82	118	110	79	78	43	240	282	252	620
v/c Ratio	0.33	0.34	0.28	0.38	0.25	0.12	0.59	0.28	0.59	0.58
Control Delay	28.1	26.8	6.4	30.5	26.4	0.7	29.4	17.2	29.5	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	26.8	6.4	30.5	26.4	0.7	29.4	17.2	29.5	21.3
Queue Length 50th (ft)	25	36	0	24	24	0	72	36	74	90
Queue Length 95th (ft)	59	77	13	68	65	0	191	85	209	203
Internal Link Dist (ft)		208			363			1325		863
Turn Bay Length (ft)	150		100	105		200	100		200	
Base Capacity (vph)	488	692	649	441	659	631	1089	3077	622	2460
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.17	0.17	0.18	0.12	0.07	0.22	0.09	0.41	0.25

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	84	78	65	64	35	230	243	28	229	527	37
Future Volume (veh/h)	58	84	78	65	64	35	230	243	28	229	527	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	118	110	79	78	43	240	253	29	252	579	41
Peak Hour Factor	0.71	0.71	0.71	0.82	0.82	0.82	0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	351	380	316	310	380	310	310	918	104	319	977	69
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.17	0.29	0.29	0.18	0.29	0.29
Sat Flow, veh/h	1252	1870	1555	1139	1870	1528	1781	3200	362	1781	3349	237
Grp Volume(v), veh/h	82	118	110	79	78	43	240	139	143	252	307	313
Grp Sat Flow(s),veh/h/ln	1252	1870	1555	1139	1870	1528	1781	1777	1786	1781	1777	1808
Q Serve(g_s), s	3.0	2.8	3.1	3.3	1.8	1.2	6.6	3.1	3.2	6.9	7.6	7.6
Cycle Q Clear(g_c), s	4.8	2.8	3.1	6.0	1.8	1.2	6.6	3.1	3.2	6.9	7.6	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.13
Lane Grp Cap(c), veh/h	351	380	316	310	380	310	310	510	512	319	519	528
V/C Ratio(X)	0.23	0.31	0.35	0.25	0.21	0.14	0.77	0.27	0.28	0.79	0.59	0.59
Avail Cap(c_a), veh/h	584	729	606	523	729	595	1214	1557	1565	694	1384	1409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	17.4	17.5	20.0	17.0	16.8	20.2	14.2	14.2	20.2	15.6	15.6
Incr Delay (d2), s/veh	0.1	0.2	0.2	0.2	0.1	0.1	2.8	0.4	0.4	3.0	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	1.8	1.7	1.4	1.2	0.6	4.7	1.9	2.0	4.9	4.8	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.1	17.6	17.8	20.1	17.1	16.9	23.1	14.5	14.6	23.2	16.9	16.9
LnGrp LOS	B	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		310			200			522			872	
Approach Delay, s/veh		18.1			18.2			18.5			18.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.2	20.7		16.4	13.9	21.0		16.4				
Change Period (Y+Rc), s	5.0	6.0		* 6	5.0	6.0		6.0				
Max Green Setting (Gmax), s	20.0	45.0		* 20	35.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	8.9	5.2		6.8	8.6	9.6		8.0				
Green Ext Time (p_c), s	0.5	2.2		0.7	0.6	5.0		0.4				

Intersection Summary		
HCM 6th Ctrl Delay		18.5
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	70.0	70.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	4	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	8.0	6.0	6.0	6.0
Right Corner Size B (ft)	7.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	56.00	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	3	1	4	0
Ped. R. Sidewalk Flow Rate (p/h)	6	3	2	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	2259.9	2940.3	1381.5	10800.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3998.4	1525.2	795.3	0.0
Crosswalk Circulation Code	A	A	A	-
Pedestrian Delay (s/p)	45.5	45.5	45.5	45.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.46	2.38	2.71	2.75
Pedestrian Crosswalk LOS	B	B	C	C

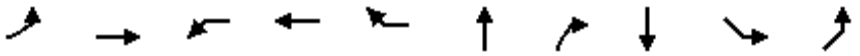
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	1	8	15
Total Flow Rate (veh/h)	310	200	522	872
Effct. Green for Bike (s)	11.3	10.2	17.7	18.3
Cross Street Width (ft)	62.0	62.0	62.0	62.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	4.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	Yes	No	No
Bicycle Lane Capacity (bike/h)	202	182	316	327
Bicycle Delay (s/bike)	45.3	46.3	39.9	39.5
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.48	2.84	1.65	1.94
Bicycle LOS	B	C	B	B

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	220	4	0	10	0	240	4	0	0	0
Future Vol, veh/h	0	5	220	4	0	10	0	240	4	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	0	2	2	2	2	2	2	2
Mvmt Flow	0	5	239	4	0	11	0	261	4	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.5	7.6	9.7
HCM LOS	A	A	A

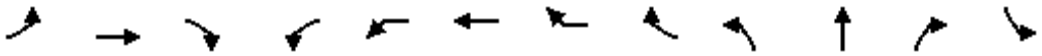
Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	29%
Vol Thru, %	98%	2%	0%
Vol Right, %	2%	98%	71%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	244	225	14
LT Vol	0	0	4
Through Vol	240	5	0
RT Vol	4	220	10
Lane Flow Rate	265	245	15
Geometry Grp	1	1	1
Degree of Util (X)	0.331	0.271	0.019
Departure Headway (Hd)	4.487	3.996	4.447
Convergence, Y/N	Yes	Yes	Yes
Cap	806	900	805
Service Time	2.487	2.015	2.476
HCM Lane V/C Ratio	0.329	0.272	0.019
HCM Control Delay	9.7	8.5	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.5	1.1	0.1



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	16	845	29	534	168	24	76	465	20	20
v/c Ratio	0.18	0.78	0.38	0.47	0.15	0.04	0.10	0.81	0.18	0.07
Control Delay	54.5	38.1	63.8	30.5	0.3	22.1	0.3	40.4	51.9	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	38.1	63.8	30.5	0.3	22.1	0.3	40.4	51.9	0.4
Queue Length 50th (ft)	9	215	16	101	0	7	0	208	11	0
Queue Length 95th (ft)	36	#464	#53	225	0	30	0	323	41	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	97	1089	77	1137	1149	618	763	574	114	372
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.78	0.38	0.47	0.15	0.04	0.10	0.81	0.18	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	15	783	3	24	0	438	0	138	13	8	66	270
Future Volume (vph)	15	783	3	24	0	438	0	138	13	8	66	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0			5.0	5.0	
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00			1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.94			1.00	0.98	
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00			1.00	1.00	
Frt	1.00	1.00			1.00	1.00	0.85			1.00	0.85	
Flt Protected	0.95	1.00			0.95	1.00	1.00			0.97	1.00	
Satd. Flow (prot)	1770	3537			1770	3539	1493			1805	1554	
Flt Permitted	0.95	1.00			0.95	1.00	1.00			0.77	1.00	
Satd. Flow (perm)	1770	3537			1770	3539	1493			1441	1554	
Peak-hour factor, PHF	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.87	0.87	0.87	0.67
Adj. Flow (vph)	16	842	3	29	0	534	0	168	15	9	76	403
RTOR Reduction (vph)	0	0	0	0	0	0	119	0	0	0	47	0
Lane Group Flow (vph)	16	845	0	0	29	534	49	0	0	24	29	0
Confl. Peds. (#/hr)	5		1	1			5	5	2		5	5
Confl. Bikes (#/hr)			2				4	4			5	
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	NA	Perm	Perm
Protected Phases	5	2		1	1	6				8		
Permitted Phases							6		8		8	4
Actuated Green, G (s)	1.7	30.5			2.2	30.0	30.0			40.1	40.1	
Effective Green, g (s)	1.7	30.5			2.2	30.0	30.0			40.1	40.1	
Actuated g/C Ratio	0.02	0.29			0.02	0.29	0.29			0.39	0.39	
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0			5.0	5.0	
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0			3.5	3.5	
Lane Grp Cap (vph)	28	1039			37	1022	431			556	600	
v/s Ratio Prot	0.01	c0.24			c0.02	0.15						
v/s Ratio Perm							0.03			0.02	0.02	
v/c Ratio	0.57	0.81			0.78	0.52	0.11			0.04	0.05	
Uniform Delay, d1	50.7	34.0			50.6	30.9	27.1			19.9	19.9	
Progression Factor	1.00	1.00			1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	16.3	5.6			63.9	0.9	0.2			0.0	0.0	
Delay (s)	67.0	39.6			114.4	31.8	27.4			19.9	20.0	
Level of Service	E	D			F	C	C			B	B	
Approach Delay (s)		40.1				34.1				20.0		
Approach LOS		D				C				B		

Intersection Summary			
HCM 2000 Control Delay	39.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	103.8	Sum of lost time (s)	27.0
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		

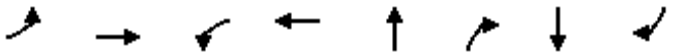
c Critical Lane Group

Movement	SBT	SBR	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations										
Traffic Volume (vph)	3	39	5	5	5	5	5	5	5	5
Future Volume (vph)	3	39	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0				5.0		
Lane Util. Factor	1.00			1.00				1.00		
Frpb, ped/bikes	1.00			1.00				1.00		
Flpb, ped/bikes	1.00			1.00				1.00		
Frt	0.98			0.93				0.93		
Flt Protected	0.96			0.98				0.98		
Satd. Flow (prot)	1742			1695				1695		
Flt Permitted	0.74			1.00				0.98		
Satd. Flow (perm)	1340			1737				1695		
Peak-hour factor, PHF	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	58	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	465	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)		2								
Confl. Bikes (#/hr)										
Turn Type	NA		Perm	Prot			Perm	Prot		
Protected Phases	4			7				3		
Permitted Phases			7				3			
Actuated Green, G (s)	40.1			2.0				3.0		
Effective Green, g (s)	40.1			2.0				3.0		
Actuated g/C Ratio	0.39			0.02				0.03		
Clearance Time (s)	5.0			5.0				5.0		
Vehicle Extension (s)	3.5			2.0				1.5		
Lane Grp Cap (vph)	517			33				48		
v/s Ratio Prot										
v/s Ratio Perm	c0.35			c0.01				0.00		
v/c Ratio	0.90			0.61				0.01		
Uniform Delay, d1	30.0			50.5				49.0		
Progression Factor	1.00			1.00				1.00		
Incremental Delay, d2	18.6			19.6				0.0		
Delay (s)	48.6			70.2				49.0		
Level of Service	D			E				D		
Approach Delay (s)	48.6			70.2				49.0		
Approach LOS	D			E				D		

Intersection Summary

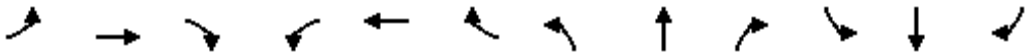
Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29670.6	11554.6	0.0	72900.0	24280.4
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2538.8	4584.8	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	47.0	47.0	47.0	47.0	47.0	47.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.74	3.20	2.00	2.03	1.74	1.76
Pedestrian Crosswalk LOS	C	C	B	B	B	B

Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	861	731	100	465	20	20
Effct. Green for Bike (s)	28.8	30.0	40.1	40.1	6.2	7.1
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	501	522	697	697	108	123
Bicycle Delay (s/bike)	32.4	31.6	24.6	24.4	51.5	50.6
Bicycle Compliance	Poor	Poor	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.77	1.26	2.82	2.70	2.62	2.20
Bicycle LOS	C	A	C	C	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	19	1221	51	797	26	69	24	13
v/c Ratio	0.15	0.51	0.32	0.21	0.16	0.27	0.15	0.05
Control Delay	47.1	11.4	47.8	5.9	40.4	10.0	40.2	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	11.4	47.8	5.9	40.4	10.0	40.2	0.4
Queue Length 50th (ft)	10	178	27	31	14	0	13	0
Queue Length 95th (ft)	36	350	66	108	29	9	27	0
Internal Link Dist (ft)		217		575	342		108	
Turn Bay Length (ft)	120		280			150		50
Base Capacity (vph)	342	2533	342	3802	531	661	521	650
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.48	0.15	0.21	0.05	0.10	0.05	0.02

Intersection Summary



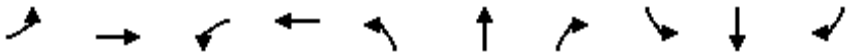
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	993	57	41	613	32	17	0	45	14	1	8
Future Volume (veh/h)	16	993	57	41	613	32	17	0	45	14	1	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	1155	66	51	757	40	26	0	69	22	2	12
Peak Hour Factor	0.86	0.86	0.86	0.81	0.81	0.81	0.65	0.65	0.65	0.64	0.64	0.64
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	1769	101	64	2671	141	84	0	412	80	4	412
Arrive On Green	0.02	0.52	0.52	0.04	0.54	0.54	0.26	0.00	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3409	195	1781	4957	261	41	0	1580	36	17	1580
Grp Volume(v), veh/h	19	602	619	51	519	278	26	0	69	24	0	12
Grp Sat Flow(s),veh/h/ln	1781	1777	1826	1781	1702	1813	41	0	1580	53	0	1580
Q Serve(g_s), s	1.0	24.1	24.2	2.8	8.1	8.2	0.7	0.0	3.3	0.7	0.0	0.6
Cycle Q Clear(g_c), s	1.0	24.1	24.2	2.8	8.1	8.2	25.6	0.0	3.3	25.6	0.0	0.6
Prop In Lane	1.00		0.11	1.00		0.14	1.00		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	29	922	948	64	1835	977	84	0	412	84	0	412
V/C Ratio(X)	0.66	0.65	0.65	0.79	0.28	0.28	0.31	0.00	0.17	0.28	0.00	0.03
Avail Cap(c_a), veh/h	273	1088	1119	273	2085	1111	147	0	484	146	0	484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.9	17.1	17.1	46.8	12.3	12.3	48.8	0.0	28.0	45.1	0.0	26.9
Incr Delay (d2), s/veh	12.8	3.6	3.5	11.0	0.4	0.7	1.5	0.0	0.1	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	14.7	15.0	2.5	5.2	5.8	1.2	0.0	2.3	1.1	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.7	20.7	20.6	57.8	12.7	13.0	50.3	0.0	28.1	46.2	0.0	27.0
LnGrp LOS	E	C	C	E	B	B	D	A	C	D	A	C
Approach Vol, veh/h		1240			848			95			36	
Approach Delay, s/veh		21.3			15.5			34.2			39.8	
Approach LOS		C			B			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	57.0		32.3	7.6	59.0		32.3				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	60.0		30.0	15.0	60.0		30.0				
Max Q Clear Time (g_c+I1), s	4.8	26.2		27.6	3.0	10.2		27.6				
Green Ext Time (p_c), s	0.0	25.0		0.0	0.0	19.5		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		19.9	
HCM 6th LOS		B	

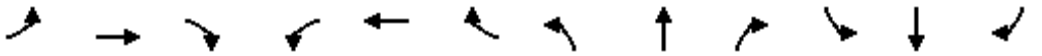
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	95.0	110.0	75.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	7	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	7.0	10.0	9.0	10.0
Right Corner Size B (ft)	7.0	10.0	9.0	8.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	14.00	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	0	2	2
Ped. Right-Left Flow Rate (p/h)	1	0	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	25	25
Right Corner Area per Ped (sq.ft)	117924.8	2078.8	294907.5	65492.5
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3914.5	0.0	5314.3	1729.1
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	51.0	51.0	51.0	51.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.99	3.02	2.07	1.99
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	16	9	0	1
Total Flow Rate (veh/h)	1240	848	95	36
Effct. Green for Bike (s)	57.6	63.5	10.0	10.0
Cross Street Width (ft)	70.0	55.0	87.0	82.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	937	1033	163	163
Bicycle Delay (s/bike)	17.5	14.5	51.9	51.9
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.15	1.58	3.05	2.87
Bicycle LOS	B	B	C	C



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	27	1202	124	510	219	224	649	14	14	11
v/c Ratio	0.39	0.55	0.43	0.17	0.76	0.77	0.88	0.10	0.11	0.04
Control Delay	62.6	24.2	33.5	2.0	55.7	56.8	24.6	41.6	41.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	24.2	33.5	2.0	55.7	56.8	24.6	41.6	41.7	0.3
Queue Length 50th (ft)	17	215	81	22	137	142	140	9	9	0
Queue Length 95th (ft)	46	310	143	26	185	189	125	18	18	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	70	2189	295	3053	321	323	745	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.55	0.42	0.17	0.68	0.69	0.87	0.05	0.05	0.03

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1044	62	110	435	19	331	10	500	11	7	7
Future Volume (veh/h)	25	1044	62	110	435	19	331	10	500	11	7	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	27	1135	67	124	489	21	439	0	649	14	15	11
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.77	0.77	0.77	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	350	1474	87	561	2206	94	577	0	752	54	54	48
Arrive On Green	0.20	0.30	0.30	0.67	0.88	0.88	0.17	0.00	0.17	0.03	0.03	0.03
Sat Flow, veh/h	1781	4913	290	1668	5013	214	3337	0	1460	1781	1752	1561
Grp Volume(v), veh/h	27	786	416	124	331	179	439	0	649	14	15	11
Grp Sat Flow(s),veh/h/ln	1781	1702	1799	1668	1702	1823	1668	0	1460	1781	1752	1561
Q Serve(g_s), s	1.2	21.0	21.1	2.9	1.4	1.5	12.5	0.0	4.6	0.8	0.8	0.7
Cycle Q Clear(g_c), s	1.2	21.0	21.1	2.9	1.4	1.5	12.5	0.0	4.6	0.8	0.8	0.7
Prop In Lane	1.00		0.16	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	350	1021	540	561	1498	802	577	0	752	54	54	48
V/C Ratio(X)	0.08	0.77	0.77	0.22	0.22	0.22	0.76	0.00	0.86	0.26	0.28	0.23
Avail Cap(c_a), veh/h	350	1021	540	561	1498	802	667	0	791	285	280	250
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.90	0.90	0.90	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	31.9	31.9	11.3	3.4	3.4	39.4	0.0	21.4	47.4	47.4	47.3
Incr Delay (d2), s/veh	0.1	5.2	9.4	0.2	0.3	0.6	4.4	0.0	9.4	2.5	2.8	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	13.8	15.3	1.8	0.9	1.1	9.3	0.0	20.6	0.7	0.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	37.0	41.3	11.5	3.8	4.0	43.8	0.0	30.8	49.8	50.2	49.8
LnGrp LOS	C	D	D	B	A	A	D	A	C	D	D	D
Approach Vol, veh/h		1229			634			1088			40	
Approach Delay, s/veh		38.4			5.3			36.0			49.9	
Approach LOS		D			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	37.6	34.0		7.1	23.6	48.0		21.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	18.0	30.0		16.0	4.0	44.0		20.0				
Max Q Clear Time (g_c+I1), s	4.9	23.1		2.8	3.2	3.5		14.5				
Green Ext Time (p_c), s	0.3	4.2		0.1	0.0	3.6		2.8				

Intersection Summary			
HCM 6th Ctrl Delay		30.7	
HCM 6th LOS		C	

Notes

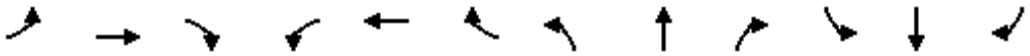
User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	100.0	90.0	100.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	0.1	8.0	0.1	12.0
Right Corner Size B (ft)	6.0	0.1	10.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.60	0.80	1.00	1.20
Ped. Left-Right Flow Rate (p/h)	0	0	3	1
Ped. Right-Left Flow Rate (p/h)	2	0	8	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21.6	668.2	44.2	270.0
Right Corner Quality of Service	D	A	B	A
Ped. Circulation Area (sq.ft)	6056.1	0.0	1035.7	11234.4
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.96	3.00	2.81	2.17
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	20	11	0	0
Total Flow Rate (veh/h)	1229	634	1092	39
Effct. Green for Bike (s)	43.7	60.4	18.5	8.1
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	874	1208	370	162
Bicycle Delay (s/bike)	16.0	7.9	33.2	42.2
Bicycle Compliance	Fair	Good	Poor	Poor
Bicycle LOS Score	1.94	1.62	3.70	2.94
Bicycle LOS	B	B	D	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	610	1328	656	114	203
v/c Ratio	0.71	0.51	0.45	0.38	0.67
Control Delay	27.0	3.8	22.7	36.7	37.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.0	3.8	22.7	36.7	37.7
Queue Length 50th (ft)	188	83	141	66	95
Queue Length 95th (ft)	126	93	243	91	132
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	859	2603	1456	557	522
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.71	0.51	0.45	0.20	0.39

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	482	1049	0	0	466	104	100	3	176	0	0	0
Future Volume (veh/h)	482	1049	0	0	466	104	100	3	176	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	610	1328	0	0	536	120	114	3	200			
Peak Hour Factor	0.79	0.79	0.79	0.87	0.87	0.87	0.88	0.88	0.88			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1379	2616	0	0	777	173	307	4	267			
Arrive On Green	0.85	1.00	0.00	0.00	0.27	0.27	0.18	0.18	0.18			
Sat Flow, veh/h	3237	3647	0	0	2971	641	1668	22	1449			
Grp Volume(v), veh/h	610	1328	0	0	330	326	114	0	203			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1743	1668	0	1471			
Q Serve(g_s), s	4.5	0.0	0.0	0.0	16.7	16.8	6.0	0.0	13.1			
Cycle Q Clear(g_c), s	4.5	0.0	0.0	0.0	16.7	16.8	6.0	0.0	13.1			
Prop In Lane	1.00		0.00	0.00		0.37	1.00		0.99			
Lane Grp Cap(c), veh/h	1379	2616	0	0	480	470	307	0	271			
V/C Ratio(X)	0.44	0.51	0.00	0.00	0.69	0.69	0.37	0.00	0.75			
Avail Cap(c_a), veh/h	1379	2616	0	0	480	470	567	0	500			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.70	0.70	0.00	0.00	0.96	0.96	1.00	0.00	1.00			
Uniform Delay (d), s/veh	4.6	0.0	0.0	0.0	32.7	32.8	35.7	0.0	38.6			
Incr Delay (d2), s/veh	0.2	0.5	0.0	0.0	7.5	7.8	0.7	0.0	4.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.0	0.3	0.0	0.0	12.5	12.4	4.5	0.0	8.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.7	0.5	0.0	0.0	40.3	40.6	36.5	0.0	42.8			
LnGrp LOS	A	A	A	A	D	D	D	A	D			
Approach Vol, veh/h		1938			656			317				
Approach Delay, s/veh		1.8			40.4			40.5				
Approach LOS		A			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.6			46.6	31.0		22.4				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			27.0	27.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			6.5	18.8		15.1				
Green Ext Time (p_c), s		14.9			2.9	2.6		1.7				
Intersection Summary												
HCM 6th Ctrl Delay			14.7									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	100.0	55.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0	0.1
Right Corner Size B (ft)	6.0	6.0	6.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	3548.2	4628.6	1884.6	0.0
Right Corner Quality of Service	A	A	A	-
Ped. Circulation Area (sq.ft)	0.0	1347.2	1252.8	0.0
Crosswalk Circulation Code	-	A	A	-
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.96	2.78	1.99	2.09
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	7	12	0	0
Total Flow Rate (veh/h)	1938	656	317	0
Effct. Green for Bike (s)	73.6	42.6	18.4	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1472	852	368	0
Bicycle Delay (s/bike)	3.5	16.6	33.3	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.71	1.58	2.25	0.00
Bicycle LOS	C	B	B	

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	2	404	332	2	741	280	141	450
v/c Ratio	0.01	0.83	0.21	0.04	0.91	0.35	0.72	0.42
Control Delay	0.0	59.5	0.3	66.5	51.1	8.1	75.1	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	59.5	0.3	66.5	51.1	8.1	75.1	19.2
Queue Length 50th (ft)	0	291	0	2	513	26	105	165
Queue Length 95th (ft)	0	#499	0	12	#1094	118	#248	434
Internal Link Dist (ft)	160	615			469			438
Turn Bay Length (ft)			180	120		370	490	
Base Capacity (vph)	545	486	1583	57	810	794	214	1071
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.83	0.21	0.04	0.91	0.35	0.66	0.42

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	313	2	259	2	697	263	124	395	1
Future Volume (veh/h)	0	0	1	313	2	259	2	697	263	124	395	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	2	401	3	0	2	741	0	141	449	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.94	0.94	0.94	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	3	449	3		4	807		173	982	2
Arrive On Green	0.00	0.00	0.00	0.25	0.25	0.00	0.00	0.43	0.00	0.10	0.53	0.53
Sat Flow, veh/h	0	0	1585	1769	13	1585	1781	1870	1585	1781	1865	4
Grp Volume(v), veh/h	0	0	2	404	0	0	2	741	0	141	0	450
Grp Sat Flow(s),veh/h/ln	0	0	1585	1782	0	1585	1781	1870	1585	1781	0	1869
Q Serve(g_s), s	0.0	0.0	0.1	22.4	0.0	0.0	0.1	38.2	0.0	7.9	0.0	15.4
Cycle Q Clear(g_c), s	0.0	0.0	0.1	22.4	0.0	0.0	0.1	38.2	0.0	7.9	0.0	15.4
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	3	453	0		4	807		173	0	984
V/C Ratio(X)	0.00	0.00	0.58	0.89	0.00		0.52	0.92		0.82	0.00	0.46
Avail Cap(c_a), veh/h	0	0	418	592	0		70	987		261	0	987
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	51.0	36.8	0.0	0.0	51.0	27.4	0.0	45.3	0.0	15.1
Incr Delay (d2), s/veh	0.0	0.0	102.9	13.0	0.0	0.0	79.9	11.6	0.0	11.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.3	16.3	0.0	0.0	0.2	24.7	0.0	7.0	0.0	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	153.9	49.8	0.0	0.0	130.8	38.9	0.0	56.6	0.0	15.4
LnGrp LOS	A	A	F	D	A		F	D		E	A	B
Approach Vol, veh/h		2			404	A		743	A		591	
Approach Delay, s/veh		153.9			49.8			39.2			25.3	
Approach LOS		F			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.9	50.2		5.2	5.2	59.9		32.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	54.0		27.0	4.0	54.0		34.0				
Max Q Clear Time (g_c+I1), s	9.9	40.2		2.1	2.1	17.4		24.4				
Green Ext Time (p_c), s	0.2	4.0		0.0	0.0	2.7		1.6				

Intersection Summary			
HCM 6th Ctrl Delay		37.0	
HCM 6th LOS		D	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	1	1	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	9.0	183150.0	53465.9	-86.0
Right Corner Quality of Service	E	A	A	F
Ped. Circulation Area (sq.ft)	0.2	8544.3	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	76.0	67.3	67.3	76.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.39	2.75	2.87
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	15	4	7
Total Flow Rate (veh/h)	2	736	1023	591
Effct. Green for Bike (s)	9.1	34.3	54.5	72.1
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	120	451	717	949
Bicycle Delay (s/bike)	67.2	45.9	31.3	21.1
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.71	3.92	3.03	1.89
Bicycle LOS	C	D	C	B

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	86	167	1140	752	31
Future Vol, veh/h	11	86	167	1140	752	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	92	180	1226	809	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1799	421	842	0	-	0
Stage 1	826	-	-	-	-	-
Stage 2	973	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	71	581	789	-	-	-
Stage 1	390	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	55	581	789	-	-	-
Mov Cap-2 Maneuver	55	-	-	-	-	-
Stage 1	301	-	-	-	-	-
Stage 2	327	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.9	1.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	789	-	55	581	-	-
HCM Lane V/C Ratio	0.228	-	0.215	0.159	-	-
HCM Control Delay (s)	10.9	-	87.6	12.4	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	0.9	-	0.7	0.6	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	1517608.3	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	1892	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.97	
Delay for adq Gap	1517610.13	
Avg Ped Delay (s)	1517608.25	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	219.3	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	752	1140
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.96	0.97
Prob of Blocked Lane	0.81	0.84
Delay for adq Gap	114.95	111.37
Avg Ped Delay (s)	110.77	108.52

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	151	57	1316	118	38	870
v/c Ratio	0.26	0.19	0.62	0.12	0.14	0.37
Control Delay	24.2	8.3	14.1	3.5	7.0	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	8.3	14.1	3.5	7.0	6.7
Queue Length 50th (ft)	22	0	101	0	4	55
Queue Length 95th (ft)	38	13	#505	32	23	188
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1442	686	2120	951	436	2888
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.08	0.62	0.12	0.09	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	103	39	1263	113	35	800
Future Volume (veh/h)	103	39	1263	113	35	800
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	151	57	1316	118	38	870
Peak Hour Factor	0.68	0.68	0.96	0.96	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	313	144	2016	868	305	2519
Arrive On Green	0.09	0.09	0.57	0.57	0.03	0.71
Sat Flow, veh/h	3456	1585	3647	1531	1781	3647
Grp Volume(v), veh/h	151	57	1316	118	38	870
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1531	1781	1777
Q Serve(g_s), s	2.3	1.9	14.0	2.0	0.4	5.2
Cycle Q Clear(g_c), s	2.3	1.9	14.0	2.0	0.4	5.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	313	144	2016	868	305	2519
V/C Ratio(X)	0.48	0.40	0.65	0.14	0.12	0.35
Avail Cap(c_a), veh/h	1702	781	2269	978	638	3177
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	23.5	8.2	5.6	6.3	3.1
Incr Delay (d2), s/veh	1.2	1.8	0.9	0.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	0.1	7.5	0.9	0.1	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.9	25.3	9.1	5.7	6.4	3.2
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	208		1434			908
Approach Delay, s/veh	25.0		8.8			3.4
Approach LOS	C		A			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		44.8		10.0	7.8	37.1
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		49.0		27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		7.2		4.3	2.4	16.0
Green Ext Time (p_c), s		13.0		0.9	0.0	15.1

Intersection Summary	
HCM 6th Ctrl Delay	8.2
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	48.6	72.1	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	7	0	5
Ped. Right-Left Flow Rate (p/h)	4	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	4524.3	6041.8	14580.0
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	F	-	F
Pedestrian Delay (s/p)	45.5	45.5	45.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	2.79	2.98
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	2	8	6
Total Flow Rate (veh/h)	208	1434	908
Effct. Green for Bike (s)	11.1	40.0	44.3
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	244	879	974
Bicycle Delay (s/bike)	35.1	14.3	12.0
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	2.80	2.22	1.28
Bicycle LOS	C	B	A

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	58	1324	45	40	858
Future Vol, veh/h	18	58	1324	45	40	858
Conflicting Peds, #/hr	0	0	0	19	19	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	76	1409	48	43	913

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1995	748	0	0	1476	0
Stage 1	1452	-	-	-	-	-
Stage 2	543	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	70	305	-	-	229	-
Stage 1	129	-	-	-	-	-
Stage 2	529	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	56	299	-	-	225	-
Mov Cap-2 Maneuver	56	-	-	-	-	-
Stage 1	127	-	-	-	-	-
Stage 2	428	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	42.2	0	1.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	56	299	225	-
HCM Lane V/C Ratio	-	-	0.423	0.255	0.189	-
HCM Control Delay (s)	-	-	110	21.1	24.7	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	1.6	1	0.7	-

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	1784.8	
Level of Service	F	

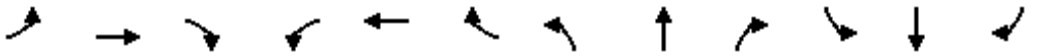
Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	1324	858
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	1.00	0.98
Prob of Blocked Lane	0.88	0.87
Delay for adq Gap	1550.72	240.66
Avg Ped Delay (s)	1548.03	236.75

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	59693784.0
Level of Service	F

Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2182
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	59693784.00
Avg Ped Delay (s)	59693784.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	31	77	66	31	127	1511	14	905	20
v/c Ratio	0.12	0.17	0.24	0.07	0.25	0.44	0.05	0.62	0.03
Control Delay	23.0	0.9	24.8	0.3	7.1	9.2	7.5	18.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.0	0.9	24.8	0.3	7.1	9.2	7.5	18.7	0.1
Queue Length 50th (ft)	10	0	22	0	12	76	1	124	0
Queue Length 95th (ft)	28	0	48	0	60	305	12	310	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	520	712	549	696	768	3532	448	1862	876
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.11	0.12	0.04	0.17	0.43	0.03	0.49	0.02

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	4	63	38	14	25	116	1322	53	13	842	19
Future Volume (veh/h)	21	4	63	38	14	25	116	1322	53	13	842	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.97	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	5	77	48	18	31	127	1453	58	14	905	20
Peak Hour Factor	0.82	0.82	0.82	0.80	0.80	0.80	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	11	480	98	22	474	345	2186	87	200	1291	542
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.08	0.44	0.44	0.01	0.36	0.36
Sat Flow, veh/h	6	37	1557	6	72	1538	1781	5025	201	1781	3554	1492
Grp Volume(v), veh/h	31	0	77	66	0	31	127	984	527	14	905	20
Grp Sat Flow(s),veh/h/ln	43	0	1557	78	0	1538	1781	1702	1821	1781	1777	1492
Q Serve(g_s), s	0.1	0.0	2.3	0.1	0.0	0.9	2.6	14.9	14.9	0.3	14.1	0.6
Cycle Q Clear(g_c), s	20.0	0.0	2.3	20.0	0.0	0.9	2.6	14.9	14.9	0.3	14.1	0.6
Prop In Lane	0.84		1.00	0.73		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	115	0	480	120	0	474	345	1481	792	200	1291	542
V/C Ratio(X)	0.27	0.00	0.16	0.55	0.00	0.07	0.37	0.66	0.66	0.07	0.70	0.04
Avail Cap(c_a), veh/h	116	0	480	121	0	474	748	1522	814	457	1589	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	0.0	16.3	26.0	0.0	15.8	12.2	14.6	14.6	13.7	17.6	13.3
Incr Delay (d2), s/veh	1.7	0.0	0.2	6.5	0.0	0.1	1.4	1.4	2.5	0.1	1.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.0	1.5	2.2	0.0	0.6	1.7	8.5	9.3	0.2	8.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	0.0	16.5	32.5	0.0	15.9	13.6	15.9	17.1	13.8	19.3	13.4
LnGrp LOS	C	A	B	C	A	B	B	B	B	B	B	B
Approach Vol, veh/h		108			97			1638			939	
Approach Delay, s/veh		19.6			27.2			16.1			19.1	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	29.6		25.0	5.7	34.2		25.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	29.0		20.0	10.0	29.0		20.0				
Max Q Clear Time (g_c+I1), s	4.6	16.1		22.0	2.3	16.9		22.0				
Green Ext Time (p_c), s	0.7	7.5		0.0	0.0	9.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		17.6	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	11	0	8
Ped. Right-Left Flow Rate (p/h)	1	12	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	196591.6	14365.2	25624.9	28061.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	6140.9	799.0	0.0	699.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	1.98	3.11	3.11
Pedestrian Crosswalk LOS	B	B	C	C

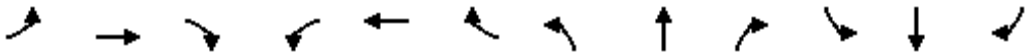
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	3	10	9
Total Flow Rate (veh/h)	108	97	1638	939
Effct. Green for Bike (s)	11.9	11.9	41.6	25.1
Cross Street Width (ft)	80.0	80.0	36.0	40.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	280	280	979	591
Bicycle Delay (s/bike)	31.4	31.5	11.1	21.2
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.96	2.94	3.01	1.87
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	73	158	390	277	260	112	1033	336	342	705
v/c Ratio	1.18	0.35	0.48	0.68	0.48	0.41	0.97	0.38	0.64	0.96
Control Delay	215.4	35.5	41.8	44.9	7.8	51.2	69.8	3.2	54.0	72.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	215.4	35.5	41.8	44.9	7.8	51.2	69.8	3.2	54.0	72.8
Queue Length 50th (ft)	~71	91	137	180	0	81	303	0	131	294
Queue Length 95th (ft)	#142	130	186	284	72	139	#405	49	182	#426
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	62	454	859	430	554	295	1060	884	573	732
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.18	0.35	0.45	0.64	0.47	0.38	0.97	0.38	0.60	0.96

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	81	42	359	126	368	105	971	316	325	627	43
Future Volume (veh/h)	57	81	42	359	126	368	105	971	316	325	627	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	104	54	390	334	268	112	1033	336	342	660	45
Peak Hour Factor	0.78	0.78	0.78	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	264	168	87	948	498	404	273	1316	820	481	821	56
Arrive On Green	0.15	0.15	0.15	0.27	0.27	0.27	0.15	0.26	0.26	0.14	0.24	0.24
Sat Flow, veh/h	1781	1134	589	3563	1870	1518	1781	5106	1543	3456	3365	229
Grp Volume(v), veh/h	73	0	158	390	334	268	112	1033	336	342	348	357
Grp Sat Flow(s),veh/h/ln	1781	0	1722	1781	1870	1518	1781	1702	1543	1728	1777	1818
Q Serve(g_s), s	3.5	0.0	8.2	8.6	15.2	15.0	5.4	18.0	12.7	9.0	17.6	17.6
Cycle Q Clear(g_c), s	3.5	0.0	8.2	8.6	15.2	15.0	5.4	18.0	12.7	9.0	17.6	17.6
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	264	0	256	948	498	404	273	1316	820	481	433	443
V/C Ratio(X)	0.28	0.00	0.62	0.41	0.67	0.66	0.41	0.79	0.41	0.71	0.80	0.81
Avail Cap(c_a), veh/h	559	0	541	1119	587	477	373	1336	826	724	465	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	0.0	38.1	28.9	31.3	31.2	36.6	33.0	13.8	39.3	34.0	34.0
Incr Delay (d2), s/veh	0.4	0.0	1.8	1.0	5.8	6.8	0.4	4.8	1.5	6.9	14.6	14.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.0	6.4	6.5	11.7	9.9	4.1	12.0	11.7	7.4	13.8	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	0.0	39.9	29.9	37.1	38.0	36.9	37.8	15.4	46.1	48.5	48.4
LnGrp LOS	D	A	D	C	D	D	D	D	B	D	D	D
Approach Vol, veh/h		231			992			1481			1047	
Approach Delay, s/veh		38.9			34.5			32.6			47.7	
Approach LOS		D			C			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.2	18.6	27.3		30.4	17.3	28.6				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		30.0	20.0	25.0		30.0	20.0	25.0				
Max Q Clear Time (g_c+I1), s		10.2	7.4	19.6		17.2	11.0	20.0				
Green Ext Time (p_c), s		0.9	0.1	3.7		8.2	2.3	4.6				

Intersection Summary												
HCM 6th Ctrl Delay			37.7									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

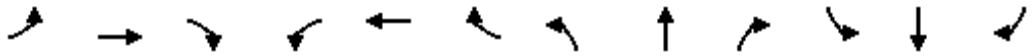
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	3	3	10
Ped. Right-Left Flow Rate (p/h)	5	1	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53572.2	24545.0	7429.8	21034.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1234.7	2379.2	2056.0	351.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	51.0	51.0	53.8	53.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.13	3.05	3.16	3.40
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	14	7	3
Total Flow Rate (veh/h)	231	927	1481	1047
Effct. Green for Bike (s)	30.1	28.4	25.1	25.1
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	489	462	408	408
Bicycle Delay (s/bike)	35.2	36.6	39.1	39.0
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.21	4.28	2.08	2.47
Bicycle LOS	C	D	B	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	399	323	152	42	140	510	895	153	888
v/c Ratio	0.68	0.72	0.61	0.17	0.42	0.70	0.49	0.42	0.71
Control Delay	45.2	21.9	51.7	37.7	9.1	40.7	26.3	46.1	36.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.2	21.9	51.7	37.7	9.1	40.7	26.3	46.1	36.9
Queue Length 50th (ft)	104	50	79	22	0	133	137	41	157
Queue Length 95th (ft)	#241	158	193	57	44	254	269	96	#341
Internal Link Dist (ft)		461		455			697		1255
Turn Bay Length (ft)	250		295		50	300		160	
Base Capacity (vph)	687	693	354	633	626	1527	2655	572	1253
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.47	0.43	0.07	0.22	0.33	0.34	0.27	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	359	40	251	137	38	126	495	860	8	139	665	143
Future Volume (veh/h)	359	40	251	137	38	126	495	860	8	139	665	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	399	44	279	152	42	140	510	887	8	153	731	157
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	503	51	324	190	369	306	653	1842	17	235	974	207
Arrive On Green	0.15	0.24	0.24	0.11	0.20	0.20	0.19	0.35	0.35	0.07	0.23	0.23
Sat Flow, veh/h	3456	216	1372	1781	1870	1551	3456	5218	47	3456	4198	891
Grp Volume(v), veh/h	399	0	323	152	42	140	510	579	316	153	591	297
Grp Sat Flow(s),veh/h/ln	1728	0	1589	1781	1870	1551	1728	1702	1861	1728	1702	1685
Q Serve(g_s), s	9.9	0.0	17.4	7.4	1.6	7.1	12.5	11.8	11.8	3.8	14.4	14.6
Cycle Q Clear(g_c), s	9.9	0.0	17.4	7.4	1.6	7.1	12.5	11.8	11.8	3.8	14.4	14.6
Prop In Lane	1.00		0.86	1.00		1.00	1.00		0.03	1.00		0.53
Lane Grp Cap(c), veh/h	503	0	375	190	369	306	653	1202	657	235	790	391
V/C Ratio(X)	0.79	0.00	0.86	0.80	0.11	0.46	0.78	0.48	0.48	0.65	0.75	0.76
Avail Cap(c_a), veh/h	699	0	536	360	631	523	1553	1415	774	582	842	416
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.7	0.0	32.6	38.8	29.3	31.5	34.3	22.4	22.4	40.4	31.8	31.9
Incr Delay (d2), s/veh	4.3	0.0	9.7	7.5	0.1	1.1	2.1	0.9	1.6	3.0	5.0	10.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.9	0.0	12.1	6.5	1.4	4.9	8.8	7.9	8.7	3.0	10.1	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.0	0.0	42.3	46.3	29.4	32.6	36.4	23.3	24.0	43.5	36.8	42.3
LnGrp LOS	D	A	D	D	C	C	D	C	C	D	D	D
Approach Vol, veh/h		722			334			1405			1041	
Approach Delay, s/veh		41.6			38.4			28.2			39.3	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.8	26.7	14.5	26.0	11.1	37.4	17.9	22.6
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	40.0	22.0	18.0	30.0	15.0	37.0	18.0	30.0
Max Q Clear Time (g_c+I1), s	14.5	16.6	9.4	19.4	5.8	13.8	11.9	9.1
Green Ext Time (p_c), s	2.3	3.8	0.3	1.7	0.3	11.7	1.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	35.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	90.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	7.0	12.0	7.0	7.0
Right Corner Size B (ft)	13.0	10.0	7.0	7.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	91.00	120.00	49.00	49.00
Ped. Left-Right Flow Rate (p/h)	0	5	0	0
Ped. Right-Left Flow Rate (p/h)	2	2	0	5
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	40879.0	8988.2	6249.3	6249.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3222.8	1313.6	0.0	1790.6
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	56.8	56.8	65.5	56.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.64	2.44	3.22	3.21
Pedestrian Crosswalk LOS	C	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	3	3	3
Total Flow Rate (veh/h)	722	334	1405	1041
Effct. Green for Bike (s)	15.1	12.4	33.2	23.3
Cross Street Width (ft)	100.0	99.0	68.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	231	189	507	356
Bicycle Delay (s/bike)	51.3	53.8	36.6	44.3
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	4.28	2.34	2.09	1.76
Bicycle LOS	D	B	B	B

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	65	1417	46	29	1136
Future Vol, veh/h	52	65	1417	46	29	1136
Conflicting Peds, #/hr	0	0	0	7	7	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	175	-	50	100	-
Veh in Median Storage, #	2	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	77	77	91	91	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	68	84	1557	51	32	1262

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2259	786	0	0	1615	0
Stage 1	1564	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	~ 35	335	-	-	400	-
Stage 1	158	-	-	-	-	-
Stage 2	456	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 32	333	-	-	397	-
Mov Cap-2 Maneuver	140	-	-	-	-	-
Stage 1	157	-	-	-	-	-
Stage 2	419	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34.2	0	0.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	140	333	397	-
HCM Lane V/C Ratio	-	-	0.482	0.254	0.081	-
HCM Control Delay (s)	-	-	52.6	19.4	14.9	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	2.2	1	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	357191744.0
Level of Service	F

Crosswalk	
Length (ft)	85
Lanes Crossed	4
Veh Vol Crossed	2553
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	27.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.99
Delay for adq Gap	357191744.00
Avg Ped Delay (s)	357191744.00

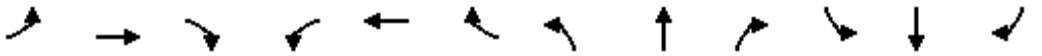
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	357191744.0
Level of Service	F

Crosswalk	
Length (ft)	85
Lanes Crossed	4
Veh Vol Crossed	2553
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	27.29
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.99
Delay for adq Gap	357191744.00
Avg Ped Delay (s)	357191744.00

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	24	7	52	110	57	52	1565	41	28	1320	33
v/c Ratio	0.15	0.03	0.20	0.68	0.24	0.17	0.63	0.04	0.11	0.55	0.03
Control Delay	37.6	34.5	3.7	59.6	13.2	3.0	12.3	0.9	4.2	10.1	0.1
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0	3.7	0.0	0.0	0.0	0.0
Total Delay	37.6	34.5	3.8	59.7	13.2	3.0	15.9	0.9	4.2	10.1	0.1
Queue Length 50th (ft)	13	4	0	65	1	4	327	0	3	201	0
Queue Length 95th (ft)	32	14	6	103	29	m4	537	m2	11	321	1
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	451	627	594	472	573	368	2469	1092	308	2407	1085
Starvation Cap Reductn	0	0	0	0	0	0	794	0	0	0	0
Spillback Cap Reductn	0	0	37	33	0	0	0	0	0	48	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.01	0.09	0.25	0.10	0.14	0.93	0.04	0.09	0.56	0.03

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	6	43	91	2	46	49	1471	39	27	1254	31
Future Volume (veh/h)	20	6	43	91	2	46	49	1471	39	27	1254	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	7	0	110	2	55	52	1565	41	28	1320	33
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	192		216	6	158	350	2493	1083	324	2451	1076
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.05	0.93	0.93	0.03	0.69	0.69
Sat Flow, veh/h	1346	1870	1585	1409	56	1538	1781	3554	1544	1781	3554	1560
Grp Volume(v), veh/h	24	7	0	110	0	57	52	1565	41	28	1320	33
Grp Sat Flow(s),veh/h/ln	1346	1870	1585	1409	0	1594	1781	1777	1544	1781	1777	1560
Q Serve(g_s), s	1.6	0.3	0.0	7.2	0.0	3.2	0.8	6.8	0.2	0.4	17.4	0.6
Cycle Q Clear(g_c), s	4.8	0.3	0.0	7.6	0.0	3.2	0.8	6.8	0.2	0.4	17.4	0.6
Prop In Lane	1.00		1.00	1.00		0.96	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	192		216	0	163	350	2493	1083	324	2451	1076
V/C Ratio(X)	0.14	0.04		0.51	0.00	0.35	0.15	0.63	0.04	0.09	0.54	0.03
Avail Cap(c_a), veh/h	484	630		546	0	537	449	2493	1083	444	2451	1076
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.66	0.66	0.66	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	38.4	0.0	41.8	0.0	39.7	5.4	1.2	1.0	4.0	7.3	4.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.7	0.0	0.5	0.0	0.8	0.0	0.1	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.3	0.0	4.6	0.0	2.3	0.3	2.0	0.1	0.2	8.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	38.4	0.0	42.5	0.0	40.1	5.4	2.0	1.0	4.2	8.1	4.7
LnGrp LOS	D	D		D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		31	A		167			1658			1381	
Approach Delay, s/veh		41.2			41.7			2.1			8.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	71.5		14.7	7.6	72.6		14.7				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	9.0	38.0		32.0	9.0	38.0		32.0				
Max Q Clear Time (g_c+I1), s	2.8	19.4		9.6	2.4	8.8		6.8				
Green Ext Time (p_c), s	0.0	15.8		0.2	0.0	25.9		0.0				

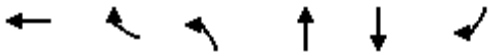
Intersection Summary			
HCM 6th Ctrl Delay		7.0	
HCM 6th LOS		A	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	39.8	39.8	39.8	39.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.48	2.09	3.34	3.21
Pedestrian Crosswalk LOS	B	B	C	C

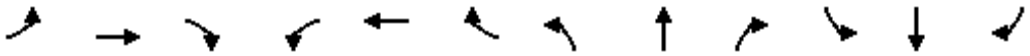
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	4
Total Flow Rate (veh/h)	83	167	1658	1381
Effct. Green for Bike (s)	11.0	11.0	66.3	64.6
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	7.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	232	232	1396	1360
Bicycle Delay (s/bike)	37.1	37.1	4.4	4.9
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.01	3.21	1.96	0.71
Bicycle LOS	C	C	B	A



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	222	403	59	1382	774	667
v/c Ratio	0.43	0.79	0.41	0.66	0.45	0.69
Control Delay	26.7	35.1	54.2	10.8	18.2	11.1
Queue Delay	0.0	0.1	0.0	15.4	0.3	0.3
Total Delay	26.7	35.2	54.2	26.2	18.5	11.3
Queue Length 50th (ft)	104	184	35	130	117	21
Queue Length 95th (ft)	137	241	m59	337	195	#218
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	762	716	148	2090	1703	962
Starvation Cap Reductn	0	0	0	0	395	41
Spillback Cap Reductn	0	13	0	722	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.57	0.40	1.01	0.59	0.72

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



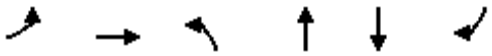
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	196	2	359	51	1202	0	0	712	614
Future Volume (veh/h)	0	0	0	196	2	359	51	1202	0	0	712	614
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				220	2	403	59	1382	0	0	774	667
Peak Hour Factor				0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				516	5	463	74	2109	0	0	1802	733
Arrive On Green				0.31	0.31	0.31	0.06	0.79	0.00	0.00	1.00	1.00
Sat Flow, veh/h				1654	15	1485	1668	3647	0	0	3647	1446
Grp Volume(v), veh/h				222	0	403	59	1382	0	0	774	667
Grp Sat Flow(s),veh/h/ln				1669	0	1485	1668	1777	0	0	1777	1446
Q Serve(g_s), s				10.0	0.0	24.4	3.3	16.1	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				10.0	0.0	24.4	3.3	16.1	0.0	0.0	0.0	0.0
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				520	0	463	74	2109	0	0	1802	733
V/C Ratio(X)				0.43	0.00	0.87	0.80	0.66	0.00	0.00	0.43	0.91
Avail Cap(c_a), veh/h				773	0	688	123	2109	0	0	1802	733
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.86	0.86	0.00	0.00	0.82	0.82
Uniform Delay (d), s/veh				26.0	0.0	30.9	44.3	5.8	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				0.6	0.0	8.1	15.3	1.4	0.0	0.0	0.6	14.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				7.2	0.0	14.5	2.9	6.5	0.0	0.0	0.3	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.5	0.0	39.0	59.6	7.1	0.0	0.0	0.6	14.8
LnGrp LOS				C	A	D	E	A	A	A	A	B
Approach Vol, veh/h					625			1441			1441	
Approach Delay, s/veh					34.5			9.3			7.2	
Approach LOS					C			A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	8.2	53.2				61.4		33.6				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	7.0	31.0				42.0		44.0				
Max Q Clear Time (g_c+I1), s	5.3	2.0				18.1		26.4				
Green Ext Time (p_c), s	0.0	10.3				10.9		3.3				

Intersection Summary			
HCM 6th Ctrl Delay			12.9
HCM 6th LOS			B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	630.0	133.2	11000.7	581.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.3	2436.3	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.21	2.21	3.02	3.26
Pedestrian Crosswalk LOS	B	B	C	C

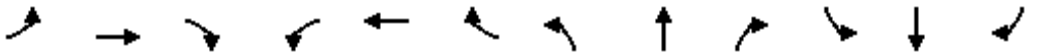
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	7
Total Flow Rate (veh/h)	0	625	1441	1441
Effct. Green for Bike (s)	0.0	29.9	56.1	45.7
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	629	1181	962
Bicycle Delay (s/bike)	0.0	22.3	8.0	12.8
Bicycle Compliance		Fair	Good	Fair
Bicycle LOS Score	0.00	2.57	2.12	1.86
Bicycle LOS		C	B	B



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	351	338	119	742	709	320
v/c Ratio	0.81	0.67	0.57	0.34	0.44	0.28
Control Delay	47.6	25.7	48.8	9.8	13.2	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.6	25.7	48.8	9.8	13.2	1.8
Queue Length 50th (ft)	198	115	68	113	127	37
Queue Length 95th (ft)	#331	216	118	148	103	0
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	475	544	228	2186	1602	1196
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.62	0.52	0.34	0.44	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	530	0	104	0	0	0	114	712	0	0	617	278
Future Volume (veh/h)	530	0	104	0	0	0	114	712	0	0	617	278
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	681	0	0	0	0	0	119	742	0	0	709	320
Peak Hour Factor	0.92	0.92	0.92	0.25	0.25	0.25	0.96	0.96	0.96	0.87	0.87	0.87
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	802	449	0	0	2	0	147	2326	0	0	1882	1122
Arrive On Green	0.24	0.00	0.00	0.00	0.00	0.00	0.09	0.65	0.00	0.00	0.17	0.17
Sat Flow, veh/h	3337	1870	0	0	1870	0	1668	3647	0	0	3647	1445
Grp Volume(v), veh/h	681	0	0	0	0	0	119	742	0	0	709	320
Grp Sat Flow(s),veh/h/ln	1668	1870	0	0	1870	0	1668	1777	0	0	1777	1445
Q Serve(g_s), s	18.5	0.0	0.0	0.0	0.0	0.0	6.7	8.7	0.0	0.0	16.7	9.2
Cycle Q Clear(g_c), s	18.5	0.0	0.0	0.0	0.0	0.0	6.7	8.7	0.0	0.0	16.7	9.2
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	802	449	0	0	2	0	147	2326	0	0	1882	1122
V/C Ratio(X)	0.85	0.00	0.00	0.00	0.00	0.00	0.81	0.32	0.00	0.00	0.38	0.29
Avail Cap(c_a), veh/h	1019	571	0	0	79	0	202	2326	0	0	1882	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.89	0.89
Uniform Delay (d), s/veh	34.4	0.0	0.0	0.0	0.0	0.0	42.5	7.2	0.0	0.0	25.3	6.3
Incr Delay (d2), s/veh	5.6	0.0	0.0	0.0	0.0	0.0	15.8	0.4	0.0	0.0	0.5	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.6	0.0	0.0	0.0	0.0	0.0	5.9	4.9	0.0	0.0	12.3	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	0.0	0.0	0.0	0.0	0.0	58.3	7.5	0.0	0.0	25.9	6.8
LnGrp LOS	D	A	A	A	A	A	E	A	A	A	C	A
Approach Vol, veh/h		681			0			861			1029	
Approach Delay, s/veh		40.1			0.0			14.5			19.9	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.9	56.3		26.8		68.2		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	11.5	33.0		29.0		48.0		4.0				
Max Q Clear Time (g_c+I1), s	8.7	18.7		20.5		10.7		0.0				
Green Ext Time (p_c), s	0.1	5.2		2.3		5.5		0.0				

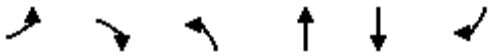
Intersection Summary			
HCM 6th Ctrl Delay		23.5	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

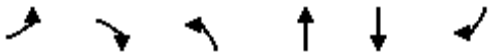
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	589815.0	7990.2	32375.7	589766.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	8363.4	1986.5	0.0	0.0
Crosswalk Circulation Code	A	A	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.54	1.43	2.80	3.00
Pedestrian Crosswalk LOS	C	A	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	8
Total Flow Rate (veh/h)	689	0	861	1029
Effct. Green for Bike (s)	26.3	4.6	58.7	43.0
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	554	97	1236	905
Bicycle Delay (s/bike)	24.8	43.0	6.9	14.3
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.77	1.39	2.05	2.18
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	627	74	30	253	490	695
v/c Ratio	0.49	0.11	0.09	0.31	0.71	0.60
Control Delay	20.6	9.8	9.7	12.2	25.3	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	9.8	9.7	12.2	25.3	5.8
Queue Length 50th (ft)	87	5	7	63	143	0
Queue Length 95th (ft)	214	40	17	98	315	198
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		100	200			
Base Capacity (vph)	1375	730	393	1704	1453	1198
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.10	0.08	0.15	0.34	0.58

Intersection Summary



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	577	68	26	220	470	667
Future Volume (veh/h)	577	68	26	220	470	667
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	627	74	30	253	490	695
Peak Hour Factor	0.92	0.92	0.87	0.87	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	926	442	274	1042	818	1098
Arrive On Green	0.27	0.27	0.03	0.56	0.44	0.44
Sat Flow, veh/h	3456	1648	1781	1870	1870	1539
Grp Volume(v), veh/h	627	74	30	253	490	695
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1539
Q Serve(g_s), s	11.1	2.4	0.6	4.7	13.7	16.6
Cycle Q Clear(g_c), s	11.1	2.4	0.6	4.7	13.7	16.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	926	442	274	1042	818	1098
V/C Ratio(X)	0.68	0.17	0.11	0.24	0.60	0.63
Avail Cap(c_a), veh/h	1261	602	478	1042	1365	1548
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	19.2	10.7	7.8	14.7	5.4
Incr Delay (d2), s/veh	2.4	0.5	0.2	0.1	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.7	0.1	0.4	2.6	8.8	14.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.8	19.7	10.9	7.9	15.6	6.2
LnGrp LOS	C	B	B	A	B	A
Approach Vol, veh/h	701			283	1185	
Approach Delay, s/veh	24.3			8.2	10.1	
Approach LOS	C			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		44.2		24.4	8.2	36.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0		25.0	10.0	50.0
Max Q Clear Time (g_c+I1), s		6.7		13.1	2.6	18.6
Green Ext Time (p_c), s		1.7		5.2	0.0	11.4

Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196586.8	0.0	196568.5
Right Corner Quality of Service	A	-	A
Ped. Circulation Area (sq.ft)	566.1	0.0	0.0
Crosswalk Circulation Code	A	-	-
Pedestrian Delay (s/p)	43.8	43.8	51.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.73	2.36	2.82
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	0	8	7
Total Flow Rate (veh/h)	701	283	1185
Effct. Green for Bike (s)	24.7	28.8	24.4
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	480	559	474
Bicycle Delay (s/bike)	29.8	26.8	30.1
Bicycle Compliance	Fair	Fair	Poor
Bicycle LOS Score	1.62	1.75	3.22
Bicycle LOS	B	B	C

Intersection	
Int Delay, s/veh	5.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	54	186	670	132	138	1088
Future Vol, veh/h	54	186	670	132	138	1088
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	100	-	-	215	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	100	100	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	214	670	132	148	1170

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1617	401	0	0	802	0
Stage 1	736	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	94	599	-	-	817	-
Stage 1	435	-	-	-	-	-
Stage 2	365	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	77	599	-	-	817	-
Mov Cap-2 Maneuver	77	-	-	-	-	-
Stage 1	435	-	-	-	-	-
Stage 2	299	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	43.8	0	1.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	77	599	817	-
HCM Lane V/C Ratio	-	-	0.806	0.357	0.182	-
HCM Control Delay (s)	-	-	145.5	14.3	10.4	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	4	1.6	0.7	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	21897.5
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	1758
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.90
Delay for adq Gap	21899.59
Avg Ped Delay (s)	21897.55

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	116910.9
Level of Service	F

Crosswalk	
Length (ft)	68
Lanes Crossed	4
Veh Vol Crossed	1758
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.43
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	116912.93
Avg Ped Delay (s)	116910.88

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	343	236	874	32	1019
v/c Ratio	0.72	0.41	0.46	0.11	0.53
Control Delay	32.8	7.1	9.7	9.3	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	7.1	9.7	9.3	10.8
Queue Length 50th (ft)	116	6	88	5	113
Queue Length 95th (ft)	268	61	186	23	234
Internal Link Dist (ft)	742		269		1054
Turn Bay Length (ft)		170		170	
Base Capacity (vph)	881	881	3045	476	3122
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.39	0.27	0.29	0.07	0.33

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	305	210	702	128	29	927
Future Volume (veh/h)	305	210	702	128	29	927
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	343	236	739	135	32	1019
Peak Hour Factor	0.89	0.89	0.95	0.95	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	427	380	1717	314	397	2042
Arrive On Green	0.24	0.24	0.57	0.57	0.57	0.57
Sat Flow, veh/h	1781	1585	3082	546	634	3647
Grp Volume(v), veh/h	343	236	439	435	32	1019
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1758	634	1777
Q Serve(g_s), s	10.7	7.9	8.3	8.3	1.8	10.1
Cycle Q Clear(g_c), s	10.7	7.9	8.3	8.3	10.1	10.1
Prop In Lane	1.00	1.00		0.31	1.00	
Lane Grp Cap(c), veh/h	427	380	1021	1010	397	2042
V/C Ratio(X)	0.80	0.62	0.43	0.43	0.08	0.50
Avail Cap(c_a), veh/h	902	802	1799	1779	675	3597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	20.1	7.1	7.1	10.0	7.5
Incr Delay (d2), s/veh	1.4	0.6	0.8	0.8	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.8	5.0	4.3	4.2	0.4	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.6	20.7	7.9	7.9	10.2	8.0
LnGrp LOS	C	C	A	A	B	A
Approach Vol, veh/h	579		874			1051
Approach Delay, s/veh	21.8		7.9			8.1
Approach LOS	C		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		40.1			40.1	19.2
Change Period (Y+Rc), s		6.0			6.0	5.0
Max Green Setting (Gmax), s		60.0			60.0	30.0
Max Q Clear Time (g_c+I1), s		10.3			12.1	12.7
Green Ext Time (p_c), s		16.4			21.9	1.5

Intersection Summary	
HCM 6th Ctrl Delay	11.2
HCM 6th LOS	B

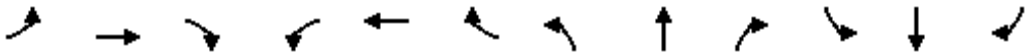
Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	0	0	5
Ped. Right-Left Flow Rate (p/h)	0	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	5355.4	32349.9	4620.9
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	12165.4	1588.9
Crosswalk Circulation Code	-	A	A
Pedestrian Delay (s/p)	42.8	40.1	42.8
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.25	3.05	2.83
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	7	7
Total Flow Rate (veh/h)	579	874	1051
Effct. Green for Bike (s)	17.6	35.7	35.7
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	349	707	707
Bicycle Delay (s/bike)	34.5	21.2	21.2
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	1.93	1.91	2.35
Bicycle LOS	B	B	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	37	27	296	299	613	21	663	368	409	727
v/c Ratio	0.24	0.12	0.67	0.67	0.80	0.21	0.69	0.37	0.96	0.40
Control Delay	56.4	1.2	46.1	46.2	17.1	65.2	42.9	2.3	78.6	22.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	1.2	46.1	46.2	17.1	65.2	42.9	2.3	78.6	22.7
Queue Length 50th (ft)	25	0	189	191	68	14	212	7	279	141
Queue Length 95th (ft)	49	0	336	340	179	53	412	30	#762	374
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		100	165	
Base Capacity (vph)	290	328	813	817	1007	188	1369	1255	428	1870
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.08	0.36	0.37	0.61	0.11	0.48	0.29	0.96	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	10	17	476	12	503	20	630	350	356	594	38
Future Volume (veh/h)	13	10	17	476	12	503	20	630	350	356	594	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	16	27	591	0	0	21	663	368	409	683	44
Peak Hour Factor	0.63	0.63	0.63	0.82	0.82	0.82	0.95	0.95	0.95	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	35	68	719	0		40	1110	802	449	1832	118
Arrive On Green	0.05	0.05	0.05	0.20	0.00	0.00	0.02	0.31	0.31	0.25	0.54	0.54
Sat Flow, veh/h	1032	786	1497	3563	0	1585	1781	3554	1545	1781	3382	218
Grp Volume(v), veh/h	37	0	27	591	0	0	21	663	368	409	359	368
Grp Sat Flow(s),veh/h/ln	1819	0	1497	1781	0	1585	1781	1777	1545	1781	1777	1823
Q Serve(g_s), s	1.8	0.0	1.6	14.3	0.0	0.0	1.0	14.2	13.7	20.1	10.4	10.5
Cycle Q Clear(g_c), s	1.8	0.0	1.6	14.3	0.0	0.0	1.0	14.2	13.7	20.1	10.4	10.5
Prop In Lane	0.57		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	82	0	68	719	0		40	1110	802	449	962	987
V/C Ratio(X)	0.45	0.00	0.40	0.82	0.00		0.52	0.60	0.46	0.91	0.37	0.37
Avail Cap(c_a), veh/h	303	0	249	1978	0		218	1578	1006	495	962	987
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	0.0	41.8	34.4	0.0	0.0	43.5	26.2	13.9	32.7	11.9	11.9
Incr Delay (d2), s/veh	1.4	0.0	1.4	0.9	0.0	0.0	3.8	1.1	0.9	20.4	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.0	1.1	9.9	0.0	0.0	0.9	9.8	11.2	16.1	6.8	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	0.0	43.2	35.3	0.0	0.0	47.3	27.3	14.8	53.1	12.4	12.4
LnGrp LOS	D	A	D	D	A		D	C	B	D	B	B
Approach Vol, veh/h		64			591	A		1052			1136	
Approach Delay, s/veh		43.3			35.3			23.3			27.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	26.2	32.6		8.6	5.5	53.3		22.7				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	25.0	40.0		15.0	11.0	40.0		50.0				
Max Q Clear Time (g_c+I1), s	22.1	16.2		3.8	3.0	12.5		16.3				
Green Ext Time (p_c), s	0.6	11.9		0.1	0.0	9.1		1.6				

Intersection Summary			
HCM 6th Ctrl Delay		27.7	
HCM 6th LOS		C	

Notes

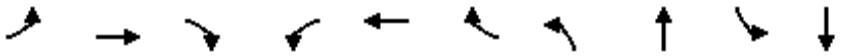
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	3	6	1
Ped. Right-Left Flow Rate (p/h)	1	6	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	1	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	58924.0	53567.3	36848.0	117930.1
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2262.6	0.0	1117.9	987.7
Crosswalk Circulation Code	A	F	A	A
Pedestrian Delay (s/p)	65.7	65.7	65.7	65.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.04	3.03	3.47	2.96
Pedestrian Crosswalk LOS	B	C	C	C

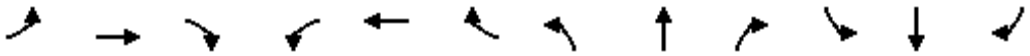
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	8	3	10
Total Flow Rate (veh/h)	64	1208	1052	1136
Effct. Green for Bike (s)	9.4	29.1	30.0	56.8
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	128	396	408	773
Bicycle Delay (s/bike)	64.4	47.5	46.6	27.8
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.71	4.56	2.12	2.17
Bicycle LOS	C	E	B	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	65	47	113	160	282	160	501	825	87	717
v/c Ratio	0.51	0.12	0.27	0.62	0.79	0.37	0.86	0.43	0.48	0.71
Control Delay	52.3	34.7	7.1	48.4	54.3	8.8	46.4	14.4	52.1	34.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	34.7	7.1	48.4	54.3	8.8	46.4	14.4	52.1	34.1
Queue Length 50th (ft)	36	24	0	92	169	0	282	158	53	214
Queue Length 95th (ft)	72	50	19	120	194	12	#525	229	108	282
Internal Link Dist (ft)		208			363			1325		863
Turn Bay Length (ft)	150		100	105		200	100		200	
Base Capacity (vph)	145	434	461	299	414	471	682	2134	390	1541
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.11	0.25	0.54	0.68	0.34	0.73	0.39	0.22	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	35	85	104	183	104	451	688	55	83	626	55
Future Volume (veh/h)	49	35	85	104	183	104	451	688	55	83	626	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	47	113	160	282	160	501	764	61	87	659	58
Peak Hour Factor	0.75	0.75	0.75	0.65	0.65	0.65	0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	426	360	337	426	360	547	1705	136	114	886	78
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.31	0.51	0.51	0.06	0.27	0.27
Sat Flow, veh/h	946	1870	1581	1224	1870	1581	1781	3324	265	1781	3286	289
Grp Volume(v), veh/h	65	47	113	160	282	160	501	408	417	87	356	361
Grp Sat Flow(s),veh/h/ln	946	1870	1581	1224	1870	1581	1781	1777	1812	1781	1777	1799
Q Serve(g_s), s	5.8	1.7	5.2	10.4	11.9	7.6	23.5	12.6	12.6	4.2	15.9	15.9
Cycle Q Clear(g_c), s	17.7	1.7	5.2	12.1	11.9	7.6	23.5	12.6	12.6	4.2	15.9	15.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.16
Lane Grp Cap(c), veh/h	169	426	360	337	426	360	547	911	930	114	479	485
V/C Ratio(X)	0.39	0.11	0.31	0.47	0.66	0.44	0.92	0.45	0.45	0.77	0.74	0.75
Avail Cap(c_a), veh/h	171	431	364	340	431	364	718	921	939	410	818	828
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	26.6	27.9	31.4	30.5	28.8	29.0	13.4	13.4	40.0	29.0	29.0
Incr Delay (d2), s/veh	0.5	0.0	0.2	0.4	3.0	0.3	12.9	0.4	0.4	7.1	2.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	1.3	3.4	5.3	9.2	4.9	16.8	8.1	8.2	3.6	11.0	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	26.6	28.1	31.7	33.5	29.1	41.9	13.8	13.8	47.1	31.8	31.9
LnGrp LOS	D	C	C	C	C	C	D	B	B	D	C	C
Approach Vol, veh/h		225			602			1326			804	
Approach Delay, s/veh		31.0			31.9			24.4			33.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.5	50.5		25.8	31.7	29.4		25.8				
Change Period (Y+Rc), s	5.0	6.0		* 6	5.0	6.0		6.0				
Max Green Setting (Gmax), s	20.0	45.0		* 20	35.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	6.2	14.6		19.7	25.5	17.9		14.1				
Green Ext Time (p_c), s	0.1	7.4		0.0	1.1	5.5		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		28.9	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	70.0	70.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	4	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	8.0	6.0	6.0	6.0
Right Corner Size B (ft)	7.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	56.00	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	1	0	0	1
Ped. Right-Left Flow Rate (p/h)	2	3	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	10057.2	8043.1	6457.2	8085.8
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3999.8	4070.8	5177.4	10543.7
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	45.5	45.5	45.5	45.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.58	2.45	2.96	2.89
Pedestrian Crosswalk LOS	C	B	C	C

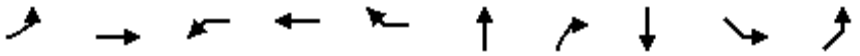
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	15	8
Total Flow Rate (veh/h)	225	602	1326	804
Effct. Green for Bike (s)	19.1	18.0	51.2	27.0
Cross Street Width (ft)	62.0	62.0	62.0	62.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	4.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	Yes	No	No
Bicycle Lane Capacity (bike/h)	341	321	914	482
Bicycle Delay (s/bike)	38.5	39.5	16.6	32.4
Bicycle Compliance	Poor	Poor	Fair	Poor
Bicycle LOS Score	2.34	3.50	2.32	1.89
Bicycle LOS	B	D	B	B

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	15	130	9	0	15	0	480	12	0	0	0
Future Vol, veh/h	0	15	130	9	0	15	0	480	12	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	0	2	2	2	2	2	2	2
Mvmt Flow	0	16	141	10	0	16	0	522	13	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.9	8.3	15.1
HCM LOS	A	A	C

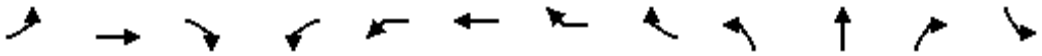
Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	38%
Vol Thru, %	98%	10%	0%
Vol Right, %	2%	90%	62%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	492	145	24
LT Vol	0	0	9
Through Vol	480	15	0
RT Vol	12	130	15
Lane Flow Rate	535	158	26
Geometry Grp	1	1	1
Degree of Util (X)	0.647	0.204	0.037
Departure Headway (Hd)	4.354	4.668	5.081
Convergence, Y/N	Yes	Yes	Yes
Cap	829	768	702
Service Time	2.385	2.707	3.132
HCM Lane V/C Ratio	0.645	0.206	0.037
HCM Control Delay	15.1	8.9	8.3
HCM Lane LOS	C	A	A
HCM 95th-tile Q	4.8	0.8	0.1



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	25	896	83	986	267	16	64	177	20	20
v/c Ratio	0.22	0.75	0.73	0.64	0.23	0.05	0.13	0.58	0.12	0.05
Control Delay	42.4	29.8	74.1	25.9	0.5	23.4	0.5	32.9	37.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	29.8	74.1	25.9	0.5	23.4	0.5	32.9	37.9	0.3
Queue Length 50th (ft)	7	115	26	86	0	4	0	48	6	0
Queue Length 95th (ft)	41	#446	#153	#545	0	21	0	144	35	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	114	1197	114	1551	1168	680	789	591	168	495
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.75	0.73	0.64	0.23	0.02	0.08	0.30	0.12	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	22	777	3	79	0	937	0	254	8	6	54	127
Future Volume (vph)	22	777	3	79	0	937	0	254	8	6	54	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0			5.0	5.0	
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00			1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.95			1.00	0.97	
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00			1.00	1.00	
Frt	1.00	1.00			1.00	1.00	0.85			1.00	0.85	
Flt Protected	0.95	1.00			0.95	1.00	1.00			0.97	1.00	
Satd. Flow (prot)	1770	3537			1770	3539	1502			1811	1534	
Flt Permitted	0.95	1.00			0.95	1.00	1.00			0.84	1.00	
Satd. Flow (perm)	1770	3537			1770	3539	1502			1561	1534	
Peak-hour factor, PHF	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.85	0.85	0.85	0.86
Adj. Flow (vph)	25	893	3	83	0	986	0	267	9	7	64	148
RTOR Reduction (vph)	0	0	0	0	0	0	166	0	0	0	52	0
Lane Group Flow (vph)	25	896	0	0	83	986	101	0	0	16	12	0
Confl. Peds. (#/hr)	1		4	4			1	1	2		12	12
Confl. Bikes (#/hr)			1				14	14			1	
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	NA	Perm	Perm
Protected Phases	5	2		1	1	6				8		
Permitted Phases							6		8		8	4
Actuated Green, G (s)	1.2	26.9			4.3	29.0	29.0			14.9	14.9	
Effective Green, g (s)	1.2	26.9			4.3	29.0	29.0			14.9	14.9	
Actuated g/C Ratio	0.02	0.35			0.06	0.38	0.38			0.19	0.19	
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0			5.0	5.0	
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0			3.5	3.5	
Lane Grp Cap (vph)	27	1242			99	1339	568			303	298	
v/s Ratio Prot	0.01	0.25			c0.05	c0.28						
v/s Ratio Perm							0.07			0.01	0.01	
v/c Ratio	0.93	0.72			0.84	0.74	0.18			0.05	0.04	
Uniform Delay, d1	37.7	21.6			35.8	20.5	15.9			25.1	25.1	
Progression Factor	1.00	1.00			1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	138.4	2.6			41.6	2.6	0.3			0.1	0.1	
Delay (s)	176.1	24.2			77.4	23.1	16.2			25.2	25.1	
Level of Service	F	C			E	C	B			C	C	
Approach Delay (s)		28.3				25.1				25.1		
Approach LOS		C				C				C		

Intersection Summary			
HCM 2000 Control Delay	27.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	27.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		

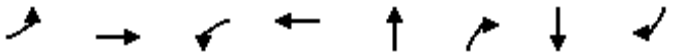
c Critical Lane Group

Movement	SBT	SBR2	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations										
Traffic Volume (vph)	5	20	5	5	5	5	5	5	5	5
Future Volume (vph)	5	20	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0				5.0		
Lane Util. Factor	1.00			1.00				1.00		
Frpb, ped/bikes	1.00			1.00				1.00		
Flpb, ped/bikes	0.99			1.00				1.00		
Frt	0.98			0.93				0.93		
Flt Protected	0.96			0.98				0.98		
Satd. Flow (prot)	1739			1695				1695		
Flt Permitted	0.75			1.00				0.98		
Satd. Flow (perm)	1358			1737				1695		
Peak-hour factor, PHF	0.86	0.86	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	6	23	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	177	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)		2								
Confl. Bikes (#/hr)										
Turn Type	NA		Perm	Prot			Perm	Prot		
Protected Phases	4			7				3		
Permitted Phases			7				3			
Actuated Green, G (s)	14.9			1.8				2.7		
Effective Green, g (s)	14.9			1.8				2.7		
Actuated g/C Ratio	0.19			0.02				0.04		
Clearance Time (s)	5.0			5.0				5.0		
Vehicle Extension (s)	3.5			2.0				1.5		
Lane Grp Cap (vph)	264			40				59		
v/s Ratio Prot										
v/s Ratio Perm	c0.13			c0.01				0.00		
v/c Ratio	0.67			0.50				0.01		
Uniform Delay, d1	28.6			37.0				35.7		
Progression Factor	1.00			1.00				1.00		
Incremental Delay, d2	6.8			3.5				0.0		
Delay (s)	35.4			40.5				35.7		
Level of Service	D			D				D		
Approach Delay (s)	35.4			40.5				35.7		
Approach LOS	D			D				D		

Intersection Summary

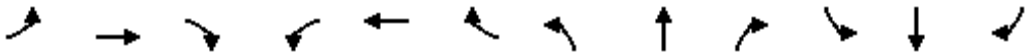
Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29676.8	11558.2	0.0	72900.0	24284.5
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	3270.2	5573.8	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	37.1	37.1	37.1	37.1	37.1	37.1
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.88	3.28	2.00	1.95	1.73	1.73
Pedestrian Crosswalk LOS	C	C	B	B	B	B

Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	921	1336	80	177	20	20
Effct. Green for Bike (s)	22.4	29.0	14.9	14.9	6.4	7.3
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	472	611	314	314	135	154
Bicycle Delay (s/bike)	27.8	23.1	34.0	33.8	41.3	40.5
Bicycle Compliance	Fair	Fair	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.82	1.76	2.79	2.22	2.62	2.20
Bicycle LOS	C	B	C	B	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	29	1069	121	1381	145	91	51	29
v/c Ratio	0.24	0.59	0.59	0.44	0.67	0.27	0.28	0.09
Control Delay	53.8	18.0	56.5	11.2	55.5	10.5	42.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	18.0	56.5	11.2	55.5	10.5	42.1	0.5
Queue Length 50th (ft)	18	221	75	166	89	0	29	0
Queue Length 95th (ft)	52	360	146	249	164	42	57	0
Internal Link Dist (ft)		217		575	342		108	
Turn Bay Length (ft)	120		280			150		50
Base Capacity (vph)	294	2315	294	3478	431	580	367	572
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.46	0.41	0.40	0.34	0.16	0.14	0.05

Intersection Summary



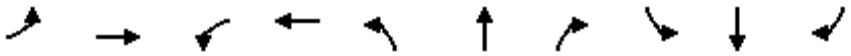
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	864	98	105	1167	35	122	5	80	36	2	22
Future Volume (veh/h)	26	864	98	105	1167	35	122	5	80	36	2	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	960	109	121	1341	40	139	6	91	48	3	29
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.88	0.88	0.88	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	1473	167	150	2658	79	67	2	446	66	2	446
Arrive On Green	0.02	0.46	0.46	0.08	0.52	0.52	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1781	3204	364	1781	5089	152	0	5	1563	0	8	1563
Grp Volume(v), veh/h	29	532	537	121	897	484	145	0	91	51	0	29
Grp Sat Flow(s),veh/h/ln	1781	1777	1791	1781	1702	1837	5	0	1563	8	0	1563
Q Serve(g_s), s	1.7	24.3	24.3	7.0	18.0	18.0	0.0	0.0	4.7	0.0	0.0	1.4
Cycle Q Clear(g_c), s	1.7	24.3	24.3	7.0	18.0	18.0	30.0	0.0	4.7	30.0	0.0	1.4
Prop In Lane	1.00		0.20	1.00		0.08	0.96		1.00	0.94		1.00
Lane Grp Cap(c), veh/h	39	817	823	150	1778	959	69	0	446	69	0	446
V/C Ratio(X)	0.75	0.65	0.65	0.81	0.50	0.50	2.12	0.00	0.20	0.74	0.00	0.07
Avail Cap(c_a), veh/h	254	1013	1021	254	1941	1047	69	0	446	69	0	446
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.2	21.9	21.9	47.3	16.3	16.3	52.0	0.0	28.6	51.3	0.0	27.4
Incr Delay (d2), s/veh	14.3	4.0	4.0	5.5	1.0	1.9	547.8	0.0	0.2	32.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	15.4	15.5	5.9	11.0	12.0	22.0	0.0	3.2	3.6	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.5	26.0	25.9	52.8	17.3	18.2	599.8	0.0	28.7	84.1	0.0	27.4
LnGrp LOS	E	C	C	D	B	B	F	A	C	F	A	C
Approach Vol, veh/h		1098			1502			236			80	
Approach Delay, s/veh		27.0			20.5			379.6			63.6	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.9	54.4		36.0	8.3	61.0		36.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	60.0		30.0	15.0	60.0		30.0				
Max Q Clear Time (g_c+I1), s	9.0	26.3		32.0	3.7	20.0		32.0				
Green Ext Time (p_c), s	0.1	22.0		0.0	0.0	30.8		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			53.2									
HCM 6th LOS			D									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	95.0	110.0	75.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	7	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	7.0	10.0	9.0	10.0
Right Corner Size B (ft)	7.0	10.0	9.0	8.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	49.00	100.00	81.00	80.00
Ped. Left-Right Flow Rate (p/h)	1	0	1	1
Ped. Right-Left Flow Rate (p/h)	0	0	1	2
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	25	25
Right Corner Area per Ped (sq.ft)	14678.8	29978.8	36418.1	17952.2
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	11745.2	0.0	5315.8	3460.5
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	51.0	51.0	51.0	51.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.13	3.11	2.13	2.00
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	10	15	4	3
Total Flow Rate (veh/h)	1098	1502	236	80
Effct. Green for Bike (s)	49.0	59.4	16.0	16.0
Cross Street Width (ft)	70.0	55.0	87.0	82.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	797	966	260	260
Bicycle Delay (s/bike)	22.4	16.6	46.6	46.6
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.04	1.94	3.28	2.95
Bicycle LOS	B	B	C	C

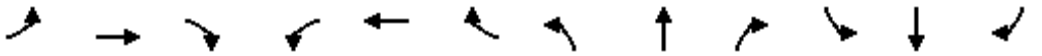


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	34	1299	191	970	408	408	255	23	24	21
v/c Ratio	0.31	0.74	0.97	0.42	0.82	0.82	0.32	0.16	0.17	0.08
Control Delay	52.9	32.7	82.0	8.9	46.9	46.3	2.3	42.9	43.2	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.9	32.7	82.0	8.9	46.9	46.3	2.3	42.9	43.2	0.6
Queue Length 50th (ft)	21	286	125	158	232	232	0	14	15	0
Queue Length 95th (ft)	53	#383	m#214	78	#426	#424	22	29	30	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	110	1767	196	2304	501	504	806	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.74	0.97	0.42	0.81	0.81	0.32	0.09	0.09	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	1097	150	183	910	21	675	27	219	19	15	15
Future Volume (veh/h)	33	1097	150	183	910	21	675	27	219	19	15	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	34	1143	156	191	948	22	807	0	255	24	24	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.86	0.86	0.86	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	44	1265	173	422	2607	60	894	0	772	70	69	61
Arrive On Green	0.02	0.28	0.28	0.51	1.00	1.00	0.27	0.00	0.27	0.04	0.04	0.04
Sat Flow, veh/h	1781	4519	616	1668	5130	119	3337	0	1480	1781	1752	1549
Grp Volume(v), veh/h	34	861	438	191	629	341	807	0	255	24	24	21
Grp Sat Flow(s),veh/h/ln	1781	1702	1732	1668	1702	1844	1668	0	1480	1781	1752	1549
Q Serve(g_s), s	1.9	24.4	24.4	7.3	0.0	0.0	23.4	0.0	0.0	1.3	1.3	1.3
Cycle Q Clear(g_c), s	1.9	24.4	24.4	7.3	0.0	0.0	23.4	0.0	0.0	1.3	1.3	1.3
Prop In Lane	1.00		0.36	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	44	953	485	422	1730	937	894	0	772	70	69	61
V/C Ratio(X)	0.78	0.90	0.90	0.45	0.36	0.36	0.90	0.00	0.33	0.34	0.35	0.34
Avail Cap(c_a), veh/h	107	953	485	422	1730	937	934	0	789	285	280	248
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.61	0.61	0.61	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	34.7	34.7	20.3	0.0	0.0	35.3	0.0	13.9	46.8	46.8	46.8
Incr Delay (d2), s/veh	21.2	11.3	19.5	0.5	0.4	0.7	11.6	0.0	0.2	2.9	3.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	16.2	17.8	4.4	0.2	0.3	16.1	0.0	5.9	1.1	1.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.7	46.0	54.2	20.8	0.4	0.7	46.9	0.0	14.1	49.6	49.8	50.1
LnGrp LOS	E	D	D	C	A	A	D	A	B	D	D	D
Approach Vol, veh/h		1333			1161			1062			69	
Approach Delay, s/veh		49.3			3.8			39.1			49.8	
Approach LOS		D			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	29.3	32.0		7.9	6.4	54.8		30.8				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	12.0	28.0		16.0	6.0	34.0		28.0				
Max Q Clear Time (g_c+I1), s	9.3	26.4		3.3	3.9	2.0		25.4				
Green Ext Time (p_c), s	0.2	1.2		0.2	0.0	7.5		1.4				

Intersection Summary												
HCM 6th Ctrl Delay			31.7									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

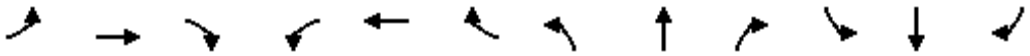
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	88.4	95.5	49.4	54.8
Crosswalk Width (ft)	10.0	10.0	10.0	10.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	11.0	11.0	10.0	15.0
Right Corner Size B (ft)	10.0	11.0	11.0	14.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	110.00	121.00	110.00	210.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	0
Ped. Right-Left Flow Rate (p/h)	1	0	3	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	3
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	12355.6	0.0	19768.9	31482.7
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	3316.1	0.0	1593.1	0.0
Crosswalk Circulation Code	A	-	A	-
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.11	3.03	2.84	2.19
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	8	9	1	5
Total Flow Rate (veh/h)	1333	1161	1071	68
Effct. Green for Bike (s)	35.6	45.4	31.9	8.4
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	712	908	638	168
Bicycle Delay (s/bike)	20.8	15.0	23.2	42.1
Bicycle Compliance	Fair	Fair	Fair	Poor
Bicycle LOS Score	2.00	1.91	3.66	2.99
Bicycle LOS	B	B	D	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	597	835	1224	225	142
v/c Ratio	0.99	0.33	0.74	0.66	0.33
Control Delay	50.4	1.8	25.7	44.8	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.4	1.8	25.7	44.8	5.2
Queue Length 50th (ft)	147	19	301	136	0
Queue Length 95th (ft)	#292	40	#565	176	32
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	604	2523	1652	557	599
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.99	0.33	0.74	0.40	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	555	777	0	0	934	192	214	0	135	0	0	0
Future Volume (veh/h)	555	777	0	0	934	192	214	0	135	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	597	835	0	0	1015	209	225	0	142			
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.95	0.95	0.95			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1166	2667	0	0	1023	210	283	0	248			
Arrive On Green	0.72	1.00	0.00	0.00	0.35	0.35	0.17	0.00	0.17			
Sat Flow, veh/h	3237	3647	0	0	3018	601	1668	0	1462			
Grp Volume(v), veh/h	597	835	0	0	616	608	225	0	142			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1748	1668	0	1462			
Q Serve(g_s), s	8.2	0.0	0.0	0.0	34.5	34.7	12.9	0.0	8.9			
Cycle Q Clear(g_c), s	8.2	0.0	0.0	0.0	34.5	34.7	12.9	0.0	8.9			
Prop In Lane	1.00		0.00	0.00		0.34	1.00		1.00			
Lane Grp Cap(c), veh/h	1166	2667	0	0	622	612	283	0	248			
V/C Ratio(X)	0.51	0.31	0.00	0.00	0.99	0.99	0.80	0.00	0.57			
Avail Cap(c_a), veh/h	1166	2667	0	0	622	612	567	0	497			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.70	0.70	0.00	0.00	0.75	0.75	1.00	0.00	1.00			
Uniform Delay (d), s/veh	10.1	0.0	0.0	0.0	32.3	32.4	39.9	0.0	38.2			
Incr Delay (d2), s/veh	0.3	0.2	0.0	0.0	28.9	30.2	5.1	0.0	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	3.8	0.1	0.0	0.0	25.3	25.3	9.5	0.0	6.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.3	0.2	0.0	0.0	61.3	62.6	44.9	0.0	40.3			
LnGrp LOS	B	A	A	A	E	E	D	A	D			
Approach Vol, veh/h		1432			1224			367				
Approach Delay, s/veh		4.4			61.9			43.1				
Approach LOS		A			E			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		79.0			40.0	39.0		21.0				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			19.0	35.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			10.2	36.7		14.9				
Green Ext Time (p_c), s		7.3			2.0	0.0		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			32.4									
HCM 6th LOS			C									

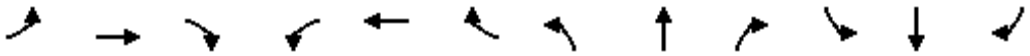
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	73.5	41.5	30.4
Crosswalk Width (ft)	10.0	11.0	10.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	8.0	9.0	19.0	0.1
Right Corner Size B (ft)	9.0	10.0	19.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	72.00	90.00	361.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	2	0
Ped. Right-Left Flow Rate (p/h)	0	1	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21565.5	40474.1	81212.1	-53.5
Right Corner Quality of Service	A	A	A	F
Ped. Circulation Area (sq.ft)	0.0	7459.0	2974.4	0.3
Crosswalk Circulation Code	-	A	A	F
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.97	2.79	2.02	2.12
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	11	1	1
Total Flow Rate (veh/h)	1432	1224	367	0
Effct. Green for Bike (s)	71.3	48.3	20.7	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1426	966	414	0
Bicycle Delay (s/bike)	4.1	13.4	31.5	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.30	2.05	2.33	0.00
Bicycle LOS	B	B	B	

Lane Group	EBT	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	4	230	117	311	568	393	611
v/c Ratio	0.01	0.58	0.07	0.59	0.67	1.01	0.57
Control Delay	0.0	32.8	0.1	27.5	6.7	80.8	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	32.8	0.1	27.5	6.7	80.8	13.2
Queue Length 50th (ft)	0	83	0	108	0	160	136
Queue Length 95th (ft)	0	180	0	207	34	#491	344
Internal Link Dist (ft)	160	615		469			438
Turn Bay Length (ft)			180		370	490	
Base Capacity (vph)	789	887	1583	1480	1338	390	1686
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.26	0.07	0.21	0.42	1.01	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	187	2	96	0	249	454	338	525	1
Future Volume (veh/h)	0	0	1	187	2	96	0	249	454	338	525	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	4	228	2	0	0	311	0	393	610	1
Peak Hour Factor	0.25	0.25	0.25	0.82	0.82	0.82	0.80	0.80	0.80	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	7	304	3		3	407		438	1018	2
Arrive On Green	0.00	0.00	0.00	0.17	0.17	0.00	0.00	0.22	0.00	0.25	0.55	0.55
Sat Flow, veh/h	0	0	1585	1767	15	1585	1781	1870	1585	1781	1867	3
Grp Volume(v), veh/h	0	0	4	230	0	0	0	311	0	393	0	611
Grp Sat Flow(s),veh/h/ln	0	0	1585	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.2	7.5	0.0	0.0	0.0	9.5	0.0	13.0	0.0	13.5
Cycle Q Clear(g_c), s	0.0	0.0	0.2	7.5	0.0	0.0	0.0	9.5	0.0	13.0	0.0	13.5
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	7	307	0		3	407		438	0	1019
V/C Ratio(X)	0.00	0.00	0.59	0.75	0.00		0.00	0.76		0.90	0.00	0.60
Avail Cap(c_a), veh/h	0	0	701	993	0		117	1654		438	0	1654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	30.3	24.0	0.0	0.0	0.0	22.4	0.0	22.3	0.0	9.4
Incr Delay (d2), s/veh	0.0	0.0	61.1	3.7	0.0	0.0	0.0	3.0	0.0	20.9	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.3	5.5	0.0	0.0	0.0	7.0	0.0	11.4	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	91.5	27.7	0.0	0.0	0.0	25.4	0.0	43.2	0.0	9.9
LnGrp LOS	A	A	F	C	A		A	C		D	A	A
Approach Vol, veh/h		4			230	A		311	A		1004	
Approach Delay, s/veh		91.5			27.7			25.4			22.9	
Approach LOS		F			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	19.3		5.3	0.0	39.3		16.5				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	54.0		27.0	4.0	54.0		34.0				
Max Q Clear Time (g_c+I1), s	15.0	11.5		2.2	0.0	15.5		9.5				
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	4.1		1.2				

Intersection Summary			
HCM 6th Ctrl Delay		24.3	
HCM 6th LOS		C	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	76.0	67.3	67.3	76.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.45	2.71	2.75
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	14	8
Total Flow Rate (veh/h)	4	347	879	1004
Effct. Green for Bike (s)	5.7	15.8	20.2	41.0
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	75	208	266	539
Bicycle Delay (s/bike)	70.4	61.1	57.5	40.7
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.71	3.28	2.79	2.57
Bicycle LOS	C	C	C	C

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	138	48	519	880	7
Future Vol, veh/h	20	138	48	519	880	7
Conflicting Peds, #/hr	1	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	80	80	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	155	60	649	1000	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1452	506	1010	0	-	0
Stage 1	1006	-	-	-	-	-
Stage 2	446	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	121	512	682	-	-	-
Stage 1	314	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	110	511	681	-	-	-
Mov Cap-2 Maneuver	110	-	-	-	-	-
Stage 1	286	-	-	-	-	-
Stage 2	611	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19	0.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	681	-	110	511	-	-
HCM Lane V/C Ratio	0.088	-	0.204	0.303	-	-
HCM Control Delay (s)	10.8	-	45.9	15.1	-	-
HCM Lane LOS	B	-	E	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.7	1.3	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	59460.7	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	1399	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.92	
Delay for adq Gap	59463.30	
Avg Ped Delay (s)	59460.73	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	195.7	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	880	519
Ped Vol Crossed	1	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.98	0.81
Prob of Blocked Lane	0.86	0.57
Delay for adq Gap	181.15	22.52
Avg Ped Delay (s)	177.40	18.27

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	573	196	655	407	84	1023
v/c Ratio	0.52	0.33	0.47	0.50	0.22	0.56
Control Delay	24.1	5.3	20.3	4.4	11.2	13.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.1	5.3	20.3	4.4	11.2	13.9
Queue Length 50th (ft)	125	0	137	0	21	178
Queue Length 95th (ft)	87	0	142	11	42	231
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1395	701	1779	927	483	2462
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.28	0.37	0.44	0.17	0.42

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	275	94	465	289	77	941
Future Volume (veh/h)	275	94	465	289	77	941
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.93	0.99	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	573	196	655	407	84	1023
Peak Hour Factor	0.48	0.48	0.71	0.71	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	832	382	1545	644	367	2066
Arrive On Green	0.24	0.24	0.43	0.43	0.05	0.58
Sat Flow, veh/h	3456	1585	3647	1481	1781	3647
Grp Volume(v), veh/h	573	196	655	407	84	1023
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1481	1781	1777
Q Serve(g_s), s	9.3	6.6	7.9	13.2	1.5	10.5
Cycle Q Clear(g_c), s	9.3	6.6	7.9	13.2	1.5	10.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	832	382	1545	644	367	2066
V/C Ratio(X)	0.69	0.51	0.42	0.63	0.23	0.50
Avail Cap(c_a), veh/h	1510	692	2012	838	625	2817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	20.3	12.1	13.6	8.5	7.6
Incr Delay (d2), s/veh	1.0	1.1	0.4	2.3	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.6	0.2	5.1	7.6	0.8	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.4	21.4	12.5	15.9	8.6	8.0
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	769		1062			1107
Approach Delay, s/veh	22.1		13.8			8.0
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		41.9		19.9	9.1	32.9
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		49.0		27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		12.5		11.3	3.5	15.2
Green Ext Time (p_c), s		15.3		3.6	0.1	11.6

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	65.0	80.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None	Actuated
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	8.0	0.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	7.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	26	0	4
Ped. Right-Left Flow Rate (p/h)	3	0	81
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	5170.9	20296.0	6893.9
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	434.9	0.0	151.4
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	37.9	45.5	37.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.39	2.83	2.88
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	17	6
Total Flow Rate (veh/h)	769	1062	1107
Effct. Green for Bike (s)	24.7	30.4	39.8
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	543	668	875
Bicycle Delay (s/bike)	24.2	20.4	14.4
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	3.27	1.91	1.45
Bicycle LOS	C	B	A

Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	51	710	75	87	1125
Future Vol, veh/h	22	51	710	75	87	1125
Conflicting Peds, #/hr	0	0	0	22	22	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	71	71	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	74	1000	106	104	1339

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1953	575	0	0	1128	0
Stage 1	1075	-	-	-	-	-
Stage 2	878	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	75	395	-	-	339	-
Stage 1	222	-	-	-	-	-
Stage 2	357	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	50	387	-	-	332	-
Mov Cap-2 Maneuver	50	-	-	-	-	-
Stage 1	217	-	-	-	-	-
Stage 2	245	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	60	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	50	387	332	-
HCM Lane V/C Ratio	-	-	0.638	0.191	0.312	-
HCM Control Delay (s)	-	-	160.7	16.5	20.7	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	2.5	0.7	1.3	-

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	820.2	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	710	1125
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	0.97	1.00
Prob of Blocked Lane	0.68	0.93
Delay for adq Gap	135.45	692.40
Avg Ped Delay (s)	130.97	689.28

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	4457916.5
Level of Service	F

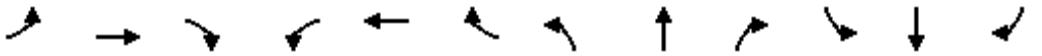
Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	1835
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.95
Delay for adq Gap	4457918.50
Avg Ped Delay (s)	4457916.50

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	59	112	153	10	54	981	16	1345	24
v/c Ratio	0.16	0.20	0.41	0.02	0.18	0.35	0.05	0.97	0.03
Control Delay	20.2	2.0	24.8	0.0	10.7	12.4	10.4	45.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	2.0	24.8	0.0	10.7	12.4	10.4	45.1	0.1
Queue Length 50th (ft)	20	0	57	0	13	107	4	~426	0
Queue Length 95th (ft)	44	7	67	0	26	152	12	#498	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	465	641	455	623	539	2845	448	1385	687
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.17	0.34	0.02	0.10	0.34	0.04	0.97	0.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	13	93	78	14	6	43	751	24	13	1116	20
Future Volume (veh/h)	36	13	93	78	14	6	43	751	24	13	1116	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.94	0.98		0.95	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	16	112	130	23	10	54	951	30	16	1345	24
Peak Hour Factor	0.83	0.83	0.83	0.60	0.60	0.60	0.79	0.79	0.79	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	20	434	97	10	440	234	2359	74	320	1484	635
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.06	0.46	0.46	0.01	0.42	0.42
Sat Flow, veh/h	0	70	1490	0	33	1512	1781	5079	160	1781	3554	1520
Grp Volume(v), veh/h	59	0	112	153	0	10	54	637	344	16	1345	24
Grp Sat Flow(s),veh/h/ln	70	0	1490	33	0	1512	1781	1702	1834	1781	1777	1520
Q Serve(g_s), s	0.0	0.0	4.0	0.0	0.0	0.3	1.1	8.5	8.5	0.4	24.4	0.6
Cycle Q Clear(g_c), s	20.0	0.0	4.0	20.0	0.0	0.3	1.1	8.5	8.5	0.4	24.4	0.6
Prop In Lane	0.73		1.00	0.85		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	434	107	0	440	234	1581	852	320	1484	635
V/C Ratio(X)	0.53	0.00	0.26	1.44	0.00	0.02	0.23	0.40	0.40	0.05	0.91	0.04
Avail Cap(c_a), veh/h	111	0	434	107	0	440	648	1581	852	559	1500	642
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	0.0	18.7	32.6	0.0	17.4	14.7	12.1	12.1	11.5	18.7	11.8
Incr Delay (d2), s/veh	6.2	0.0	0.4	241.3	0.0	0.0	1.1	0.3	0.6	0.0	8.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	0.0	2.5	16.0	0.0	0.2	0.8	4.8	5.3	0.2	15.1	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	19.1	273.8	0.0	17.4	15.8	12.4	12.7	11.5	27.3	11.9
LnGrp LOS	C	A	B	F	A	B	B	B	B	B	C	B
Approach Vol, veh/h		171			163			1035			1385	
Approach Delay, s/veh		24.2			258.1			12.7			26.9	
Approach LOS		C			F			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	34.7		25.0	5.8	37.9		25.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	29.0		20.0	10.0	29.0		20.0				
Max Q Clear Time (g_c+I1), s	3.1	26.4		22.0	2.4	10.5		22.0				
Green Ext Time (p_c), s	0.2	2.3		0.0	0.0	9.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		35.1	
HCM 6th LOS		D	

Notes

User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	4	12	0	8
Ped. Right-Left Flow Rate (p/h)	4	2	0	37
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73706.7	9989.4	42095.1	11094.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2301.5	1312.9	0.0	278.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	2.00	3.10	3.09
Pedestrian Crosswalk LOS	B	B	C	C

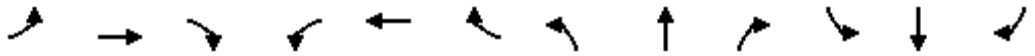
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	171	163	1035	1385
Effct. Green for Bike (s)	20.9	20.9	41.6	29.6
Cross Street Width (ft)	84.5	96.0	36.1	37.9
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	492	492	979	696
Bicycle Delay (s/bike)	24.2	24.2	11.1	18.1
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.13	3.30	2.68	2.21
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	135	199	164	194	183	49	502	190	530	927
v/c Ratio	2.05	0.40	0.25	0.55	0.43	0.21	0.51	0.27	0.85	1.02
Control Delay	541.1	36.4	38.9	32.3	8.7	45.6	42.8	3.5	60.1	79.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	541.1	36.4	38.9	32.3	8.7	45.6	42.8	3.5	60.1	79.0
Queue Length 50th (ft)	~155	112	52	87	0	31	119	0	194	~428
Queue Length 95th (ft)	#253	167	77	147	45	69	162	35	#326	#631
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	66	493	931	475	530	319	1149	748	620	905
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	2.05	0.40	0.18	0.41	0.35	0.15	0.44	0.25	0.85	1.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	117	36	136	60	253	43	437	165	477	780	54
Future Volume (veh/h)	104	117	36	136	60	253	43	437	165	477	780	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.96	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	152	47	164	247	188	49	502	190	530	867	60
Peak Hour Factor	0.77	0.77	0.77	0.83	0.83	0.83	0.87	0.87	0.87	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	290	220	68	777	408	336	218	1087	671	681	965	67
Arrive On Green	0.16	0.16	0.16	0.22	0.22	0.22	0.12	0.21	0.21	0.20	0.29	0.29
Sat Flow, veh/h	1781	1354	419	3563	1870	1539	1781	5106	1526	3456	3356	232
Grp Volume(v), veh/h	135	0	199	164	247	188	49	502	190	530	459	468
Grp Sat Flow(s),veh/h/ln	1781	0	1773	1781	1870	1539	1781	1702	1526	1728	1777	1812
Q Serve(g_s), s	5.9	0.0	9.1	3.2	10.2	9.4	2.1	7.4	7.0	12.5	21.3	21.3
Cycle Q Clear(g_c), s	5.9	0.0	9.1	3.2	10.2	9.4	2.1	7.4	7.0	12.5	21.3	21.3
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	290	0	289	777	408	336	218	1087	671	681	511	521
V/C Ratio(X)	0.47	0.00	0.69	0.21	0.61	0.56	0.22	0.46	0.28	0.78	0.90	0.90
Avail Cap(c_a), veh/h	621	0	618	1242	652	537	414	1484	789	803	516	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	0.0	34.0	27.6	30.3	30.0	34.1	29.6	15.9	32.8	29.4	29.4
Incr Delay (d2), s/veh	0.9	0.0	2.2	0.5	5.2	5.2	0.2	1.4	1.1	7.4	21.2	20.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	0.0	7.2	2.4	8.5	6.7	1.6	5.3	6.3	9.5	16.8	17.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	36.2	28.1	35.5	35.2	34.3	31.0	17.0	40.1	50.7	50.4
LnGrp LOS	C	A	D	C	D	D	C	C	B	D	D	D
Approach Vol, veh/h		334			599			741			1457	
Approach Delay, s/veh		35.1			33.4			27.6			46.7	
Approach LOS		D			C			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.0	14.5	28.7		23.8	21.0	22.3				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		30.0	20.0	25.0		30.0	20.0	25.0				
Max Q Clear Time (g_c+I1), s		11.1	4.1	23.3		12.2	14.5	9.4				
Green Ext Time (p_c), s		1.3	0.0	1.4		6.5	2.4	8.6				

Intersection Summary												
HCM 6th Ctrl Delay			38.4									
HCM 6th LOS			D									

Notes

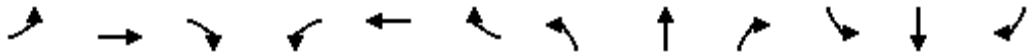
User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	2
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	7	3	5
Ped. Right-Left Flow Rate (p/h)	3	9	2	7
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53583.8	21032.3	2458.1	32730.7
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1647.1	593.9	1233.7	586.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	51.0	51.0	53.8	53.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.13	2.97	3.00	3.37
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	5	12	6
Total Flow Rate (veh/h)	334	541	741	1457
Effct. Green for Bike (s)	30.3	21.4	21.6	28.8
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	493	348	351	468
Bicycle Delay (s/bike)	35.0	42.1	42.0	36.2
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.38	3.65	1.68	2.81
Bicycle LOS	C	D	B	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	110	103	100	8	52	242	643	36	946
v/c Ratio	0.21	0.35	0.40	0.03	0.14	0.44	0.23	0.11	0.55
Control Delay	34.2	12.7	38.1	26.2	0.8	33.9	15.4	37.6	24.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	12.7	38.1	26.2	0.8	33.9	15.4	37.6	24.5
Queue Length 50th (ft)	22	6	39	3	0	48	47	7	118
Queue Length 95th (ft)	57	38	77	10	0	108	149	28	273
Internal Link Dist (ft)		461		455			697		1255
Turn Bay Length (ft)	250		295		50	300		160	
Base Capacity (vph)	961	792	492	878	808	2123	3529	796	1718
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.13	0.20	0.01	0.06	0.11	0.18	0.05	0.55

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	12	71	62	5	32	203	526	14	34	782	117
Future Volume (veh/h)	89	12	71	62	5	32	203	526	14	34	782	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	15	88	100	8	52	242	626	17	36	823	123
Peak Hour Factor	0.81	0.81	0.81	0.62	0.62	0.62	0.84	0.84	0.84	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	32	186	145	251	208	399	2043	55	104	1407	209
Arrive On Green	0.08	0.14	0.14	0.08	0.13	0.13	0.12	0.40	0.40	0.03	0.31	0.31
Sat Flow, veh/h	3456	232	1358	1781	1870	1550	3456	5108	138	3456	4472	664
Grp Volume(v), veh/h	110	0	103	100	8	52	242	417	226	36	625	321
Grp Sat Flow(s),veh/h/ln	1728	0	1590	1781	1870	1550	1728	1702	1842	1728	1702	1732
Q Serve(g_s), s	1.8	0.0	3.6	3.3	0.2	1.8	4.0	5.0	5.0	0.6	9.2	9.3
Cycle Q Clear(g_c), s	1.8	0.0	3.6	3.3	0.2	1.8	4.0	5.0	5.0	0.6	9.2	9.3
Prop In Lane	1.00		0.85	1.00		1.00	1.00		0.08	1.00		0.38
Lane Grp Cap(c), veh/h	291	0	218	145	251	208	399	1362	737	104	1071	545
V/C Ratio(X)	0.38	0.00	0.47	0.69	0.03	0.25	0.61	0.31	0.31	0.35	0.58	0.59
Avail Cap(c_a), veh/h	1041	0	798	537	939	778	2314	2108	1141	868	1253	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	0.0	23.8	26.7	22.5	23.2	25.1	12.3	12.3	28.4	17.2	17.2
Incr Delay (d2), s/veh	0.8	0.0	1.6	5.7	0.1	0.6	1.5	0.4	0.7	2.0	1.5	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	2.5	2.8	0.2	1.2	2.7	2.9	3.2	0.5	5.8	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	0.0	25.4	32.5	22.5	23.8	26.6	12.6	12.9	30.4	18.7	20.2
LnGrp LOS	C	A	C	C	C	C	C	B	B	C	B	C
Approach Vol, veh/h		213			160			885			982	
Approach Delay, s/veh		26.1			29.1			16.5			19.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	24.8	9.9	13.2	6.8	29.9	10.0	13.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	40.0	22.0	18.0	30.0	15.0	37.0	18.0	30.0
Max Q Clear Time (g_c+I1), s	6.0	11.3	5.3	5.6	2.6	7.0	3.8	3.8
Green Ext Time (p_c), s	1.1	7.1	0.2	0.6	0.1	9.3	0.3	0.2

Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Notes

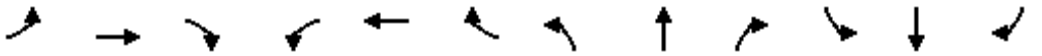
User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	90.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	7.0	12.0	7.0	7.0
Right Corner Size B (ft)	13.0	10.0	7.0	7.0
Right Corner Curb Radius (ft)	30.0	30.0	30.0	30.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	6	3	1	6
Ped. Right-Left Flow Rate (p/h)	1	1	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73707.8	42094.1	117920.4	34653.2
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	919.7	2299.7	0.1	895.3
Crosswalk Circulation Code	A	A	F	A
Pedestrian Delay (s/p)	56.8	56.8	65.5	56.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.50	2.39	3.10	3.08
Pedestrian Crosswalk LOS	C	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	1	0	4
Total Flow Rate (veh/h)	213	160	885	982
Effct. Green for Bike (s)	9.8	11.2	39.2	24.4
Cross Street Width (ft)	100.0	99.0	68.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	150	171	598	373
Bicycle Delay (s/bike)	56.1	54.8	32.2	43.5
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.44	2.05	1.80	1.73
Bicycle LOS	C	B	B	B

Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	45	87	23	33	71	972	29	951	36
v/c Ratio	0.15	0.17	0.07	0.06	0.16	0.46	0.12	0.48	0.04
Control Delay	21.0	0.7	20.6	0.3	23.5	9.3	24.6	10.8	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	0.7	20.6	0.3	23.5	9.3	24.6	10.8	0.9
Queue Length 50th (ft)	12	0	6	0	10	70	8	118	0
Queue Length 95th (ft)	39	0	19	0	28	148	31	168	5
Internal Link Dist (ft)				233		1200		376	
Turn Bay Length (ft)	100	100			200		100		
Base Capacity (vph)	990	1197	1016	1197	458	2672	236	2718	1233
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.07	0.02	0.03	0.16	0.36	0.12	0.35	0.03

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	0	80	16	0	23	65	717	80	27	894	33
Future Volume (veh/h)	41	0	80	16	0	23	65	717	80	27	894	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	0	87	23	0	33	71	874	98	29	951	36
Peak Hour Factor	0.92	0.92	0.92	0.70	0.92	0.70	0.92	0.82	0.82	0.94	0.94	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	389	357	303	400	0	303	264	1468	165	71	1496	663
Arrive On Green	0.19	0.00	0.19	0.19	0.00	0.19	0.08	0.46	0.46	0.04	0.42	0.42
Sat Flow, veh/h	1376	1870	1585	1310	0	1585	3456	3208	360	1781	3554	1574
Grp Volume(v), veh/h	45	0	87	23	0	33	71	484	488	29	951	36
Grp Sat Flow(s),veh/h/ln	1376	1870	1585	1310	0	1585	1728	1777	1791	1781	1777	1574
Q Serve(g_s), s	1.3	0.0	2.3	0.7	0.0	0.8	0.9	9.8	9.8	0.8	10.2	0.7
Cycle Q Clear(g_c), s	2.2	0.0	2.3	0.7	0.0	0.8	0.9	9.8	9.8	0.8	10.2	0.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	389	357	303	400	0	303	264	813	819	71	1496	663
V/C Ratio(X)	0.12	0.00	0.29	0.06	0.00	0.11	0.27	0.60	0.60	0.41	0.64	0.05
Avail Cap(c_a), veh/h	1072	1286	1090	1048	0	1087	431	1329	1339	222	2658	1177
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	0.0	16.7	16.0	0.0	16.1	21.0	9.7	9.7	22.5	11.0	8.3
Incr Delay (d2), s/veh	0.1	0.0	0.5	0.1	0.0	0.2	0.5	0.7	0.7	3.7	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	0.0	1.4	0.4	0.0	0.5	0.6	4.7	4.7	0.6	5.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	0.0	17.2	16.1	0.0	16.2	21.5	10.4	10.4	26.2	11.5	8.3
LnGrp LOS	B	A	B	B	A	B	C	B	B	C	B	A
Approach Vol, veh/h		132			56			1043			1016	
Approach Delay, s/veh		17.2			16.2			11.2			11.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	27.8		13.9	8.2	26.1		13.9				
Change Period (Y+Rc), s	4.5	5.8		* 4.7	4.5	5.8		* 4.7				
Max Green Setting (Gmax), s	6.0	36.0		* 33	6.0	36.0		* 33				
Max Q Clear Time (g_c+I1), s	2.8	11.8		4.3	2.9	12.2		2.8				
Green Ext Time (p_c), s	0.0	6.3		0.5	0.0	7.0		0.2				

Intersection Summary			
HCM 6th Ctrl Delay		11.9	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

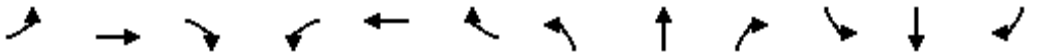
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.7	36.0	72.5	83.9
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	45.0	45.0	45.0	45.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.36	2.00	2.98	2.94
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	132	56	1043	1016
Effct. Green for Bike (s)	10.7	10.6	28.7	26.8
Cross Street Width (ft)	72.5	83.9	36.0	60.7
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	238	236	638	596
Bicycle Delay (s/bike)	34.9	35.0	20.9	22.2
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.89	2.94	2.97	3.33
Bicycle LOS	C	C	C	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	9	77	59	58	37	1159	63	28	885	26
v/c Ratio	0.18	0.04	0.28	0.34	0.24	0.08	0.45	0.06	0.07	0.34	0.02
Control Delay	34.7	30.0	6.9	39.6	13.0	3.1	7.6	1.2	5.9	9.1	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	34.7	30.0	6.9	39.6	13.0	3.1	7.7	1.2	5.9	9.1	0.0
Queue Length 50th (ft)	17	5	0	35	5	1	41	0	2	97	0
Queue Length 95th (ft)	23	10	7	47	24	m8	396	16	19	271	0
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	450	627	594	471	573	550	2553	1138	431	2569	1153
Starvation Cap Reductn	0	0	0	0	0	0	479	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.01	0.13	0.13	0.10	0.07	0.56	0.06	0.06	0.34	0.02

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	6	51	47	6	40	31	962	52	27	858	25
Future Volume (veh/h)	19	6	51	47	6	40	31	962	52	27	858	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	9	0	59	8	50	37	1159	63	28	885	26
Peak Hour Factor	0.66	0.66	0.66	0.80	0.80	0.80	0.83	0.83	0.83	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	139	152		184	18	113	516	2568	1121	452	2549	1121
Arrive On Green	0.08	0.08	0.00	0.08	0.08	0.08	0.07	1.00	1.00	0.03	0.72	0.72
Sat Flow, veh/h	1342	1870	1585	1401	223	1391	1781	3554	1551	1781	3554	1563
Grp Volume(v), veh/h	29	9	0	59	0	58	37	1159	63	28	885	26
Grp Sat Flow(s),veh/h/ln	1342	1870	1585	1401	0	1614	1781	1777	1551	1781	1777	1563
Q Serve(g_s), s	2.0	0.4	0.0	3.9	0.0	3.3	0.5	0.0	0.0	0.4	8.9	0.5
Cycle Q Clear(g_c), s	5.3	0.4	0.0	4.3	0.0	3.3	0.5	0.0	0.0	0.4	8.9	0.5
Prop In Lane	1.00		1.00	1.00		0.86	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	139	152		184	0	132	516	2568	1121	452	2549	1121
V/C Ratio(X)	0.21	0.06		0.32	0.00	0.44	0.07	0.45	0.06	0.06	0.35	0.02
Avail Cap(c_a), veh/h	482	630		542	0	544	626	2568	1121	572	2549	1121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.87	0.87	0.87	0.90	0.90	0.90
Uniform Delay (d), s/veh	44.1	40.3	0.0	42.2	0.0	41.6	3.4	0.0	0.0	3.1	5.1	3.9
Incr Delay (d2), s/veh	0.3	0.1	0.0	0.4	0.0	0.9	0.0	0.5	0.1	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.4	0.0	2.4	0.0	2.4	0.2	0.3	0.0	0.2	4.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.3	40.3	0.0	42.6	0.0	42.4	3.4	0.5	0.1	3.2	5.4	3.9
LnGrp LOS	D	D		D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		38	A		117			1259			939	
Approach Delay, s/veh		43.4			42.5			0.6			5.3	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	74.1		12.7	7.6	74.6		12.7				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	9.0	38.0		32.0	9.0	38.0		32.0				
Max Q Clear Time (g_c+I1), s	2.5	10.9		6.3	2.4	2.0		7.3				
Green Ext Time (p_c), s	0.0	15.8		0.2	0.0	25.2		0.0				

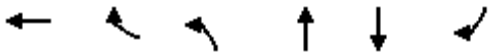
Intersection Summary		
HCM 6th Ctrl Delay		5.2
HCM 6th LOS		A

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	12600.0	0.0	589765.2
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	10980.0
Crosswalk Circulation Code	-	-	-	A
Pedestrian Delay (s/p)	39.8	39.8	39.8	39.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.48	2.09	3.13	3.00
Pedestrian Crosswalk LOS	B	B	C	C

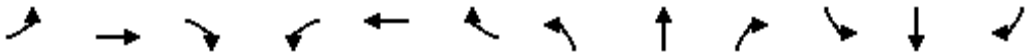
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	4
Total Flow Rate (veh/h)	115	117	1259	939
Effct. Green for Bike (s)	11.7	11.7	68.5	69.0
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	246	246	1442	1453
Bicycle Delay (s/bike)	36.5	36.5	3.7	3.6
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.07	3.13	1.63	1.84
Bicycle LOS	C	C	B	B



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	451	287	26	918	726	391
v/c Ratio	0.78	0.51	0.22	0.47	0.41	0.44
Control Delay	36.7	20.1	52.0	8.1	15.9	5.2
Queue Delay	0.0	0.0	0.0	0.2	0.3	0.4
Total Delay	36.7	20.2	52.0	8.3	16.2	5.5
Queue Length 50th (ft)	238	100	15	68	78	4
Queue Length 95th (ft)	258	127	m26	181	154	72
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	762	716	125	1961	1787	886
Starvation Cap Reductn	0	0	0	0	507	153
Spillback Cap Reductn	0	5	0	290	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.40	0.21	0.55	0.57	0.53

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



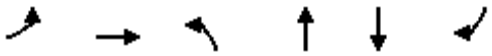
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	368	2	235	22	771	0	0	653	352
Future Volume (veh/h)	0	0	0	368	2	235	22	771	0	0	653	352
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				449	2	287	26	918	0	0	726	391
Peak Hour Factor				0.82	0.82	0.82	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				530	2	473	30	2084	0	0	1869	761
Arrive On Green				0.32	0.32	0.32	0.02	0.78	0.00	0.00	1.00	1.00
Sat Flow, veh/h				1661	7	1485	1668	3647	0	0	3647	1448
Grp Volume(v), veh/h				451	0	287	26	918	0	0	726	391
Grp Sat Flow(s),veh/h/ln				1669	0	1485	1668	1777	0	0	1777	1448
Q Serve(g_s), s				24.0	0.0	15.5	1.5	8.2	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				24.0	0.0	15.5	1.5	8.2	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				532	0	473	30	2084	0	0	1869	761
V/C Ratio(X)				0.85	0.00	0.61	0.86	0.44	0.00	0.00	0.39	0.51
Avail Cap(c_a), veh/h				773	0	688	123	2084	0	0	1869	761
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.88	0.88	0.00	0.00	0.95	0.95
Uniform Delay (d), s/veh				30.2	0.0	27.3	46.2	5.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				6.0	0.0	1.3	41.0	0.6	0.0	0.0	0.6	2.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				15.5	0.0	9.4	1.7	4.0	0.0	0.0	0.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				36.2	0.0	28.6	87.2	5.8	0.0	0.0	0.6	2.3
LnGrp LOS				D	A	C	F	A	A	A	A	A
Approach Vol, veh/h					738			944			1117	
Approach Delay, s/veh					33.2			8.1			1.2	
Approach LOS					C			A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	5.7	55.0				60.7		34.3				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	7.0	31.0				42.0		44.0				
Max Q Clear Time (g_c+I1), s	3.5	2.0				10.2		26.0				
Green Ext Time (p_c), s	0.0	7.5				7.0		4.3				

Intersection Summary			
HCM 6th Ctrl Delay			12.0
HCM 6th LOS			B

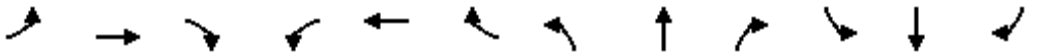
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.91	2.26	2.93	2.99
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	1	5
Total Flow Rate (veh/h)	0	738	944	1117
Effct. Green for Bike (s)	0.0	33.3	52.7	48.0
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	701	1109	1011
Bicycle Delay (s/bike)	0.0	20.0	9.4	11.7
Bicycle Compliance		Fair	Good	Fair
Bicycle LOS Score	0.00	2.76	1.71	1.59
Bicycle LOS		C	B	B



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	350	334	73	443	1022	132
v/c Ratio	0.82	0.68	0.45	0.20	0.57	0.11
Control Delay	48.8	26.1	47.9	8.6	22.2	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.8	26.1	47.9	8.6	22.2	0.9
Queue Length 50th (ft)	198	113	42	61	300	7
Queue Length 95th (ft)	293	201	72	73	312	0
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	475	537	204	2200	1784	1204
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.62	0.36	0.20	0.57	0.11

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	455	0	140	0	0	0	58	350	0	0	920	119
Future Volume (veh/h)	455	0	140	0	0	0	58	350	0	0	920	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	342	253	161	0	0	0	73	443	0	0	1022	132
Peak Hour Factor	0.87	0.87	0.87	0.25	0.25	0.25	0.79	0.79	0.79	0.90	0.90	0.90
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	450	288	183	0	2	0	93	2221	0	0	1893	1172
Arrive On Green	0.27	0.27	0.27	0.00	0.00	0.00	0.06	0.63	0.00	0.00	0.53	0.53
Sat Flow, veh/h	1668	1068	680	0	1870	0	1668	3647	0	0	3647	1449
Grp Volume(v), veh/h	342	0	414	0	0	0	73	443	0	0	1022	132
Grp Sat Flow(s),veh/h/ln	1668	0	1748	0	1870	0	1668	1777	0	0	1777	1449
Q Serve(g_s), s	17.9	0.0	21.5	0.0	0.0	0.0	4.1	5.1	0.0	0.0	17.9	1.9
Cycle Q Clear(g_c), s	17.9	0.0	21.5	0.0	0.0	0.0	4.1	5.1	0.0	0.0	17.9	1.9
Prop In Lane	1.00		0.39	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	450	0	471	0	2	0	93	2221	0	0	1893	1172
V/C Ratio(X)	0.76	0.00	0.88	0.00	0.00	0.00	0.79	0.20	0.00	0.00	0.54	0.11
Avail Cap(c_a), veh/h	509	0	534	0	79	0	202	2221	0	0	1893	1172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh	31.9	0.0	33.2	0.0	0.0	0.0	44.3	7.6	0.0	0.0	14.6	2.0
Incr Delay (d2), s/veh	5.8	0.0	14.2	0.0	0.0	0.0	13.7	0.2	0.0	0.0	1.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.4	0.0	16.1	0.0	0.0	0.0	3.6	3.0	0.0	0.0	10.6	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	0.0	47.4	0.0	0.0	0.0	58.0	7.8	0.0	0.0	15.6	2.2
LnGrp LOS	D	A	D	A	A	A	E	A	A	A	B	A
Approach Vol, veh/h		756			0			516			1154	
Approach Delay, s/veh		43.0			0.0			14.9			14.1	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.8	56.6		29.6		65.4		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	11.5	33.0		29.0		48.0		4.0				
Max Q Clear Time (g_c+I1), s	6.1	19.9		23.5		7.1		0.0				
Green Ext Time (p_c), s	0.1	6.0		2.1		3.0		0.0				

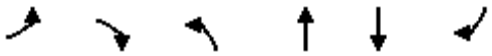
Intersection Summary												
HCM 6th Ctrl Delay			23.3									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.47	1.43	2.81	2.93
Pedestrian Crosswalk LOS	B	A	C	C

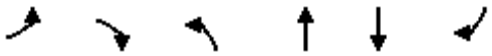
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	2	6
Total Flow Rate (veh/h)	684	0	516	1154
Effct. Green for Bike (s)	25.9	4.6	59.1	47.9
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	545	97	1244	1008
Bicycle Delay (s/bike)	25.1	43.0	6.8	11.7
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.76	1.39	1.77	2.28
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	981	61	21	394	241	366
v/c Ratio	0.64	0.08	0.06	0.63	0.43	0.31
Control Delay	17.4	9.0	11.2	19.8	18.9	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.4	9.0	11.2	19.8	18.9	2.5
Queue Length 50th (ft)	110	5	5	108	60	0
Queue Length 95th (ft)	#337	36	15	170	144	72
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		100	200			
Base Capacity (vph)	1535	777	443	1809	1657	1176
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.08	0.05	0.22	0.15	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	942	59	19	355	231	351
Future Volume (veh/h)	942	59	19	355	231	351
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	981	61	21	394	241	366
Peak Hour Factor	0.96	0.96	0.90	0.90	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1373	655	286	714	460	1007
Arrive On Green	0.40	0.40	0.03	0.38	0.25	0.25
Sat Flow, veh/h	3456	1648	1781	1870	1870	1533
Grp Volume(v), veh/h	981	61	21	394	241	366
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1533
Q Serve(g_s), s	13.0	1.3	0.4	9.0	6.1	6.1
Cycle Q Clear(g_c), s	13.0	1.3	0.4	9.0	6.1	6.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1373	655	286	714	460	1007
V/C Ratio(X)	0.71	0.09	0.07	0.55	0.52	0.36
Avail Cap(c_a), veh/h	1592	760	570	1241	1724	2042
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.8	10.2	13.8	13.1	17.7	4.5
Incr Delay (d2), s/veh	2.2	0.2	0.1	0.8	1.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.6	2.7	0.3	5.4	4.3	7.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.0	10.4	13.9	14.0	18.9	4.8
LnGrp LOS	B	B	B	B	B	A
Approach Vol, veh/h	1042			415	607	
Approach Delay, s/veh	15.7			13.9	10.4	
Approach LOS	B			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		26.7		27.6	7.4	19.3
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0		25.0	10.0	50.0
Max Q Clear Time (g_c+I1), s		11.0		15.0	2.4	8.1
Green Ext Time (p_c), s		2.8		6.6	0.0	4.8

Intersection Summary		
HCM 6th Ctrl Delay		13.8
HCM 6th LOS		B

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	10.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	1	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196586.8	32400.0	294852.8
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	849.0	8666.9	0.0
Crosswalk Circulation Code	A	A	-
Pedestrian Delay (s/p)	43.8	43.8	51.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.73	2.30	2.79
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	3	6	4
Total Flow Rate (veh/h)	1042	415	607
Effct. Green for Bike (s)	25.7	19.4	17.4
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	499	377	338
Bicycle Delay (s/bike)	29.0	34.0	35.6
Bicycle Compliance	Fair	Poor	Poor
Bicycle LOS Score	1.90	1.97	2.27
Bicycle LOS	B	B	B

Intersection	
Int Delay, s/veh	7.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	76	98	1037	252	59	507
Future Vol, veh/h	76	98	1037	252	59	507
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	100	-	-	215	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	94	94	95	95	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	81	104	1092	265	61	528

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1611	679	0	0	1357	0
Stage 1	1225	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	95	394	-	-	503	-
Stage 1	241	-	-	-	-	-
Stage 2	656	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	84	394	-	-	503	-
Mov Cap-2 Maneuver	84	-	-	-	-	-
Stage 1	241	-	-	-	-	-
Stage 2	577	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	86.6	0	1.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	84	394	503	-
HCM Lane V/C Ratio	-	-	0.963	0.265	0.122	-
HCM Control Delay (s)	-	-	175.9	17.4	13.2	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	5.3	1	0.4	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	8044.9
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	1544
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.87
Delay for adq Gap	8047.26
Avg Ped Delay (s)	8044.93

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	35074.0
Level of Service	F

Crosswalk	
Length (ft)	68
Lanes Crossed	4
Veh Vol Crossed	1544
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.43
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.91
Delay for adq Gap	35076.37
Avg Ped Delay (s)	35074.04

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	84	55	1271	38	568
v/c Ratio	0.30	0.19	0.50	0.14	0.21
Control Delay	30.4	9.9	6.0	6.7	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	9.9	6.0	6.7	4.5
Queue Length 50th (ft)	30	0	87	4	32
Queue Length 95th (ft)	79	29	251	24	97
Internal Link Dist (ft)	742		269		1054
Turn Bay Length (ft)		170		170	
Base Capacity (vph)	843	771	2956	314	3083
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.10	0.07	0.43	0.12	0.18

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Traffic Volume (veh/h)	81	53	842	289	35	523	
Future Volume (veh/h)	81	53	842	289	35	523	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	84	55	946	325	38	568	
Peak Hour Factor	0.96	0.96	0.89	0.89	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	194	173	1802	615	353	2481	
Arrive On Green	0.11	0.11	0.70	0.70	0.70	0.70	
Sat Flow, veh/h	1781	1585	2676	881	436	3647	
Grp Volume(v), veh/h	84	55	649	622	38	568	
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1687	436	1777	
Q Serve(g_s), s	2.5	1.8	9.9	10.1	2.6	3.3	
Cycle Q Clear(g_c), s	2.5	1.8	9.9	10.1	12.7	3.3	
Prop In Lane	1.00	1.00		0.52	1.00		
Lane Grp Cap(c), veh/h	194	173	1240	1177	353	2481	
V/C Ratio(X)	0.43	0.32	0.52	0.53	0.11	0.23	
Avail Cap(c_a), veh/h	937	833	1869	1774	508	3737	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	23.8	23.5	4.1	4.1	7.1	3.1	
Incr Delay (d2), s/veh	0.6	0.4	0.9	1.0	0.4	0.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(95%),veh/ln	1.9	1.2	3.2	3.1	0.4	1.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	24.3	23.8	5.0	5.1	7.5	3.2	
LnGrp LOS	C	C	A	A	A	A	
Approach Vol, veh/h	139		1271			606	
Approach Delay, s/veh	24.1		5.1			3.5	
Approach LOS	C		A			A	

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		45.8			45.8	11.2
Change Period (Y+Rc), s		6.0			6.0	5.0
Max Green Setting (Gmax), s		60.0			60.0	30.0
Max Q Clear Time (g_c+I1), s		12.1			14.7	4.5
Green Ext Time (p_c), s		27.8			11.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

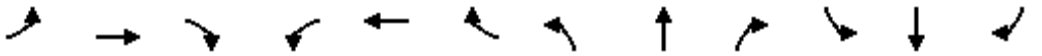
Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	1	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	2	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	4620.9	16173.2	10746.5
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	2052.3	0.0	3178.8
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	42.8	40.1	42.8
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.18	2.95	2.73
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	5	6
Total Flow Rate (veh/h)	139	1271	606
Effct. Green for Bike (s)	10.6	50.6	50.6
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	210	1002	1002
Bicycle Delay (s/bike)	40.5	12.6	12.6
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	1.21	2.24	1.98
Bicycle LOS	A	B	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	36	28	159	160	338	17	372	557	329	329
v/c Ratio	0.19	0.11	0.51	0.51	0.60	0.14	0.51	0.66	0.58	0.18
Control Delay	38.7	0.9	39.4	39.4	9.0	47.4	34.4	7.7	34.4	15.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	0.9	39.4	39.4	9.0	47.4	34.4	7.7	34.4	15.2
Queue Length 50th (ft)	17	0	75	75	0	8	86	36	137	37
Queue Length 95th (ft)	51	0	171	171	55	37	184	86	#417	131
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		100	165	
Base Capacity (vph)	382	402	1070	1076	1115	247	1802	1326	563	2423
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.07	0.15	0.15	0.30	0.07	0.21	0.42	0.58	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	13	25	261	7	284	16	350	524	296	288	8
Future Volume (veh/h)	19	13	25	261	7	284	16	350	524	296	288	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	15	28	317	0	0	17	372	557	329	320	9
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.94	0.94	0.94	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	47	34	68	453	0		35	1417	821	385	2098	59
Arrive On Green	0.04	0.04	0.04	0.13	0.00	0.00	0.02	0.40	0.40	0.22	0.59	0.59
Sat Flow, veh/h	1060	757	1515	3563	0	1585	1781	3554	1553	1781	3527	99
Grp Volume(v), veh/h	36	0	28	317	0	0	17	372	557	329	161	168
Grp Sat Flow(s),veh/h/ln	1817	0	1515	1781	0	1585	1781	1777	1553	1781	1777	1849
Q Serve(g_s), s	1.5	0.0	1.4	6.8	0.0	0.0	0.8	5.6	21.1	14.1	3.2	3.2
Cycle Q Clear(g_c), s	1.5	0.0	1.4	6.8	0.0	0.0	0.8	5.6	21.1	14.1	3.2	3.2
Prop In Lane	0.58		1.00	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	81	0	68	453	0		35	1417	821	385	1057	1100
V/C Ratio(X)	0.44	0.00	0.41	0.70	0.00		0.48	0.26	0.68	0.86	0.15	0.15
Avail Cap(c_a), veh/h	343	0	286	2238	0		246	1786	982	560	1057	1100
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.0	0.0	37.0	33.3	0.0	0.0	38.6	16.1	13.9	30.0	7.2	7.2
Incr Delay (d2), s/veh	1.4	0.0	1.5	0.7	0.0	0.0	3.8	0.2	2.4	9.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	1.0	5.0	0.0	0.0	0.6	3.8	14.2	10.9	1.9	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	0.0	38.5	34.0	0.0	0.0	42.4	16.3	16.4	39.5	7.3	7.3
LnGrp LOS	D	A	D	C	A		D	B	B	D	A	A
Approach Vol, veh/h		64			317	A		946			658	
Approach Delay, s/veh		38.5			34.0			16.8			23.4	
Approach LOS		D			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.7	36.2		8.1	5.1	51.8		14.6				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	25.0	40.0		15.0	11.0	40.0		50.0				
Max Q Clear Time (g_c+I1), s	16.1	23.1		3.5	2.8	5.2		8.8				
Green Ext Time (p_c), s	1.1	8.6		0.1	0.0	3.9		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		22.4	
HCM 6th LOS		C	

Notes

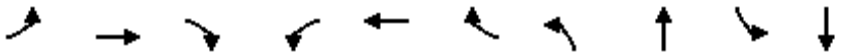
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

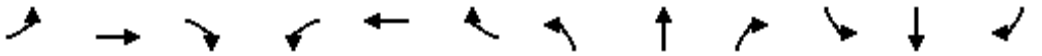
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	0	6	1	1
Ped. Right-Left Flow Rate (p/h)	0	3	3	1
Ped. R. Sidewalk Flow Rate (p/h)	1	1	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	117946.6	49123.9	45313.5	294866.4
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	1678.8	493.8
Crosswalk Circulation Code	-	F	A	A
Pedestrian Delay (s/p)	65.7	65.7	65.7	65.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.03	2.95	3.31	2.69
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	4	2	4	9
Total Flow Rate (veh/h)	64	657	946	658
Effct. Green for Bike (s)	8.9	15.4	17.0	43.9
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	121	210	231	597
Bicycle Delay (s/bike)	65.0	59.0	57.6	36.3
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.71	3.65	2.03	1.78
Bicycle LOS	C	D	B	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	82	118	110	82	78	43	240	312	252	644
v/c Ratio	0.34	0.34	0.28	0.39	0.25	0.12	0.60	0.29	0.60	0.59
Control Delay	28.7	27.3	6.4	31.4	27.0	0.7	30.1	17.3	30.3	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.7	27.3	6.4	31.4	27.0	0.7	30.1	17.3	30.3	21.3
Queue Length 50th (ft)	26	37	0	27	25	0	75	41	78	96
Queue Length 95th (ft)	60	77	12	71	66	0	192	93	212	212
Internal Link Dist (ft)		208			363			1325		863
Turn Bay Length (ft)	150		100	105		200	100		200	
Base Capacity (vph)	476	675	636	430	643	620	1063	3036	607	2402
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.17	0.17	0.19	0.12	0.07	0.23	0.10	0.42	0.27

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	84	78	67	64	35	230	270	30	229	549	37
Future Volume (veh/h)	58	84	78	67	64	35	230	270	30	229	549	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	118	110	82	78	43	240	281	31	252	603	41
Peak Hour Factor	0.71	0.71	0.71	0.82	0.82	0.82	0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	349	381	317	308	381	311	309	942	103	318	1001	68
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.17	0.29	0.29	0.18	0.30	0.30
Sat Flow, veh/h	1252	1870	1555	1139	1870	1528	1781	3215	351	1781	3359	228
Grp Volume(v), veh/h	82	118	110	82	78	43	240	154	158	252	318	326
Grp Sat Flow(s),veh/h/ln	1252	1870	1555	1139	1870	1528	1781	1777	1788	1781	1777	1810
Q Serve(g_s), s	3.1	2.8	3.2	3.5	1.8	1.2	6.7	3.5	3.6	7.1	8.0	8.1
Cycle Q Clear(g_c), s	4.9	2.8	3.2	6.3	1.8	1.2	6.7	3.5	3.6	7.1	8.0	8.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.13
Lane Grp Cap(c), veh/h	349	381	317	308	381	311	309	521	524	318	530	540
V/C Ratio(X)	0.23	0.31	0.35	0.27	0.20	0.14	0.78	0.30	0.30	0.79	0.60	0.60
Avail Cap(c_a), veh/h	572	714	594	511	714	584	1191	1527	1537	680	1357	1383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	17.7	17.9	20.4	17.3	17.1	20.7	14.3	14.3	20.6	15.7	15.7
Incr Delay (d2), s/veh	0.1	0.2	0.2	0.2	0.1	0.1	2.9	0.4	0.4	3.1	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	1.9	1.8	1.5	1.2	0.7	4.8	2.2	2.3	5.0	5.2	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	17.9	18.1	20.5	17.4	17.2	23.6	14.7	14.8	23.7	17.1	17.1
LnGrp LOS	B	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		310			203			552			896	
Approach Delay, s/veh		18.4			18.6			18.6			18.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.3	21.4		16.7	14.1	21.6		16.7				
Change Period (Y+Rc), s	5.0	6.0		* 6	5.0	6.0		6.0				
Max Green Setting (Gmax), s	20.0	45.0		* 20	35.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	9.1	5.6		6.9	8.7	10.1		8.3				
Green Ext Time (p_c), s	0.5	2.5		0.7	0.6	5.2		0.4				

Intersection Summary		
HCM 6th Ctrl Delay		18.7
HCM 6th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	70.0	70.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	4	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	8.0	6.0	6.0	6.0
Right Corner Size B (ft)	7.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	56.00	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	3	1	4	0
Ped. R. Sidewalk Flow Rate (p/h)	6	3	2	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	2259.9	2940.3	1381.5	10800.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3998.4	1525.2	795.3	0.0
Crosswalk Circulation Code	A	A	A	-
Pedestrian Delay (s/p)	45.5	45.5	45.5	45.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.46	2.38	2.73	2.76
Pedestrian Crosswalk LOS	B	B	C	C

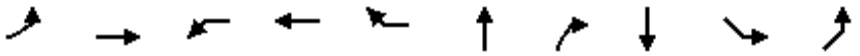
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	1	8	15
Total Flow Rate (veh/h)	310	203	552	896
Effct. Green for Bike (s)	11.4	10.4	18.8	19.3
Cross Street Width (ft)	62.0	62.0	62.0	62.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	4.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	Yes	No	No
Bicycle Lane Capacity (bike/h)	204	186	336	345
Bicycle Delay (s/bike)	45.2	46.1	38.9	38.7
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.48	2.84	1.68	1.96
Bicycle LOS	B	C	B	B

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	220	4	0	10	0	240	4	0	0	0
Future Vol, veh/h	0	5	220	4	0	10	0	240	4	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	0	2	2	2	2	2	2	2
Mvmt Flow	0	5	239	4	0	11	0	261	4	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.5	7.6	9.7
HCM LOS	A	A	A

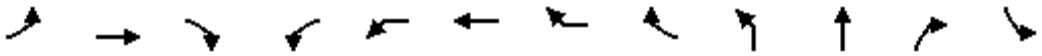
Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	29%
Vol Thru, %	98%	2%	0%
Vol Right, %	2%	98%	71%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	244	225	14
LT Vol	0	0	4
Through Vol	240	5	0
RT Vol	4	220	10
Lane Flow Rate	265	245	15
Geometry Grp	1	1	1
Degree of Util (X)	0.331	0.271	0.019
Departure Headway (Hd)	4.487	3.996	4.447
Convergence, Y/N	Yes	Yes	Yes
Cap	806	900	805
Service Time	2.487	2.015	2.476
HCM Lane V/C Ratio	0.329	0.272	0.019
HCM Control Delay	9.7	8.5	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.5	1.1	0.1



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	17	858	29	546	168	24	76	467	20	20
v/c Ratio	0.19	0.79	0.38	0.48	0.15	0.04	0.10	0.81	0.18	0.07
Control Delay	54.8	38.6	63.8	30.6	0.3	22.1	0.3	40.5	51.9	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.8	38.6	63.8	30.6	0.3	22.1	0.3	40.5	51.9	0.4
Queue Length 50th (ft)	9	219	16	103	0	7	0	209	11	0
Queue Length 95th (ft)	37	#474	#53	230	0	30	0	325	41	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	97	1088	77	1138	1148	617	763	575	114	372
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.79	0.38	0.48	0.15	0.04	0.10	0.81	0.18	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	16	795	3	24	0	448	0	138	13	8	66	270
Future Volume (vph)	16	795	3	24	0	448	0	138	13	8	66	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0			5.0	5.0	
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00			1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.94			1.00	0.98	
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00			1.00	1.00	
Frt	1.00	1.00			1.00	1.00	0.85			1.00	0.85	
Flt Protected	0.95	1.00			0.95	1.00	1.00			0.97	1.00	
Satd. Flow (prot)	1770	3537			1770	3539	1493			1805	1554	
Flt Permitted	0.95	1.00			0.95	1.00	1.00			0.77	1.00	
Satd. Flow (perm)	1770	3537			1770	3539	1493			1439	1554	
Peak-hour factor, PHF	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.87	0.87	0.87	0.67
Adj. Flow (vph)	17	855	3	29	0	546	0	168	15	9	76	403
RTOR Reduction (vph)	0	0	0	0	0	0	119	0	0	0	47	0
Lane Group Flow (vph)	17	858	0	0	29	546	49	0	0	24	29	0
Confl. Peds. (#/hr)	5		1	1			5	5	2		5	5
Confl. Bikes (#/hr)			2				4	4			5	
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	NA	Perm	Perm
Protected Phases	5	2		1	1	6				8		
Permitted Phases							6		8		8	4
Actuated Green, G (s)	1.7	30.5			2.2	30.0	30.0			40.1	40.1	
Effective Green, g (s)	1.7	30.5			2.2	30.0	30.0			40.1	40.1	
Actuated g/C Ratio	0.02	0.29			0.02	0.29	0.29			0.39	0.39	
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0			5.0	5.0	
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0			3.5	3.5	
Lane Grp Cap (vph)	28	1039			37	1022	431			555	600	
v/s Ratio Prot	0.01	c0.24			c0.02	0.15						
v/s Ratio Perm							0.03			0.02	0.02	
v/c Ratio	0.61	0.83			0.78	0.53	0.11			0.04	0.05	
Uniform Delay, d1	50.7	34.2			50.6	31.0	27.1			19.9	19.9	
Progression Factor	1.00	1.00			1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	22.9	6.1			63.9	1.0	0.2			0.0	0.0	
Delay (s)	73.6	40.3			114.4	32.0	27.4			19.9	20.0	
Level of Service	E	D			F	C	C			B	B	
Approach Delay (s)		40.9				34.2				20.0		
Approach LOS		D				C				B		

Intersection Summary			
HCM 2000 Control Delay	39.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	103.8	Sum of lost time (s)	27.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		

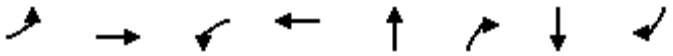
c Critical Lane Group

Movement	SBT	SBR	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations										
Traffic Volume (vph)	3	40	5	5	5	5	5	5	5	5
Future Volume (vph)	3	40	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0			5.0				5.0		
Lane Util. Factor	1.00			1.00				1.00		
Frpb, ped/bikes	1.00			1.00				1.00		
Flpb, ped/bikes	1.00			1.00				1.00		
Frt	0.98			0.93				0.93		
Flt Protected	0.96			0.98				0.98		
Satd. Flow (prot)	1741			1695				1695		
Flt Permitted	0.74			1.00				0.98		
Satd. Flow (perm)	1341			1737				1695		
Peak-hour factor, PHF	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	4	60	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	467	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)		2								
Confl. Bikes (#/hr)										
Turn Type	NA		Perm	Prot			Perm	Prot		
Protected Phases	4			7				3		
Permitted Phases			7				3			
Actuated Green, G (s)	40.1			2.0				3.0		
Effective Green, g (s)	40.1			2.0				3.0		
Actuated g/C Ratio	0.39			0.02				0.03		
Clearance Time (s)	5.0			5.0				5.0		
Vehicle Extension (s)	3.5			2.0				1.5		
Lane Grp Cap (vph)	518			33				48		
v/s Ratio Prot										
v/s Ratio Perm	c0.35			c0.01				0.00		
v/c Ratio	0.90			0.61				0.01		
Uniform Delay, d1	30.0			50.5				49.0		
Progression Factor	1.00			1.00				1.00		
Incremental Delay, d2	19.1			19.6				0.0		
Delay (s)	49.1			70.2				49.0		
Level of Service	D			E				D		
Approach Delay (s)	49.1			70.2				49.0		
Approach LOS	D			E				D		

Intersection Summary

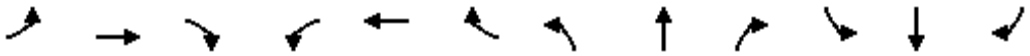
Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29670.6	11554.6	0.0	72900.0	24280.4
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2538.8	4584.8	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	47.0	47.0	47.0	47.0	47.0	47.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.74	3.21	2.00	2.03	1.74	1.76
Pedestrian Crosswalk LOS	C	C	B	B	B	B

Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	875	743	100	467	20	20
Effct. Green for Bike (s)	28.8	30.0	40.1	40.1	6.2	7.1
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	501	522	697	697	108	123
Bicycle Delay (s/bike)	32.4	31.6	24.6	24.4	51.5	50.6
Bicycle Compliance	Poor	Poor	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.78	1.27	2.82	2.70	2.62	2.20
Bicycle LOS	C	A	C	C	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	19	1235	51	809	26	69	24	13
v/c Ratio	0.15	0.51	0.33	0.21	0.16	0.27	0.15	0.05
Control Delay	47.1	11.5	47.9	5.9	40.4	10.0	40.3	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	11.5	47.9	5.9	40.4	10.0	40.3	0.4
Queue Length 50th (ft)	10	182	27	31	14	0	13	0
Queue Length 95th (ft)	36	356	66	110	29	9	27	0
Internal Link Dist (ft)		217		575	342		108	
Turn Bay Length (ft)	120		280			150		50
Base Capacity (vph)	339	2529	339	3808	526	656	517	645
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.49	0.15	0.21	0.05	0.11	0.05	0.02

Intersection Summary



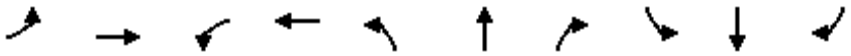
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	1005	57	41	623	32	17	0	45	14	1	8
Future Volume (veh/h)	16	1005	57	41	623	32	17	0	45	14	1	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	1169	66	51	769	40	26	0	69	22	2	12
Peak Hour Factor	0.86	0.86	0.86	0.81	0.81	0.81	0.65	0.65	0.65	0.64	0.64	0.64
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	1775	100	65	2680	139	84	0	412	79	4	412
Arrive On Green	0.02	0.52	0.52	0.04	0.54	0.54	0.26	0.00	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1781	3411	192	1781	4961	257	41	0	1580	36	16	1580
Grp Volume(v), veh/h	19	608	627	51	527	282	26	0	69	24	0	12
Grp Sat Flow(s),veh/h/ln	1781	1777	1827	1781	1702	1814	41	0	1580	53	0	1580
Q Serve(g_s), s	1.0	24.6	24.7	2.8	8.3	8.4	0.7	0.0	3.3	0.7	0.0	0.6
Cycle Q Clear(g_c), s	1.0	24.6	24.7	2.8	8.3	8.4	25.8	0.0	3.3	25.8	0.0	0.6
Prop In Lane	1.00		0.11	1.00		0.14	1.00		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	29	924	950	65	1839	980	84	0	412	84	0	412
V/C Ratio(X)	0.66	0.66	0.66	0.79	0.29	0.29	0.31	0.00	0.17	0.29	0.00	0.03
Avail Cap(c_a), veh/h	271	1081	1111	271	2071	1104	144	0	480	142	0	480
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.2	17.3	17.3	47.2	12.3	12.3	49.2	0.0	28.2	45.5	0.0	27.1
Incr Delay (d2), s/veh	12.9	3.7	3.6	10.9	0.4	0.7	1.6	0.0	0.1	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	15.0	15.3	2.5	5.4	5.9	1.2	0.0	2.3	1.1	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.1	20.9	20.9	58.1	12.7	13.1	50.7	0.0	28.3	46.6	0.0	27.1
LnGrp LOS	E	C	C	E	B	B	D	A	C	D	A	C
Approach Vol, veh/h		1254			860			95			36	
Approach Delay, s/veh		21.5			15.5			34.4			40.1	
Approach LOS		C			B			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.6	57.5		32.4	7.6	59.5		32.4				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	60.0		30.0	15.0	60.0		30.0				
Max Q Clear Time (g_c+I1), s	4.8	26.7		27.8	3.0	10.4		27.8				
Green Ext Time (p_c), s	0.0	24.9		0.0	0.0	19.8		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		20.1	
HCM 6th LOS		C	

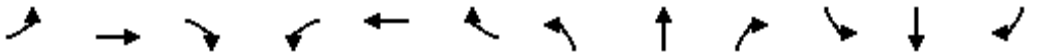
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	95.0	110.0	75.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	7	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	7.0	10.0	9.0	10.0
Right Corner Size B (ft)	7.0	10.0	9.0	8.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	14.00	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	0	2	2
Ped. Right-Left Flow Rate (p/h)	1	0	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	25	25
Right Corner Area per Ped (sq.ft)	117924.8	2078.8	294907.5	65492.5
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3914.5	0.0	5314.3	1729.1
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	51.0	51.0	51.0	51.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.00	3.02	2.07	1.99
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	16	9	0	1
Total Flow Rate (veh/h)	1254	860	95	36
Effct. Green for Bike (s)	57.8	63.8	9.9	9.9
Cross Street Width (ft)	70.0	55.0	87.0	82.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	940	1037	161	161
Bicycle Delay (s/bike)	17.4	14.3	52.0	52.0
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.16	1.59	3.05	2.87
Bicycle LOS	B	B	C	C



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	27	1215	124	521	219	224	649	14	14	11
v/c Ratio	0.39	0.56	0.43	0.17	0.76	0.77	0.88	0.10	0.11	0.04
Control Delay	62.6	24.3	33.3	1.9	55.7	56.8	24.7	41.6	41.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	24.3	33.3	1.9	55.7	56.8	24.7	41.6	41.7	0.3
Queue Length 50th (ft)	17	218	82	22	137	142	140	9	9	0
Queue Length 95th (ft)	46	315	143	26	185	189	125	18	18	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	70	2189	295	3054	321	323	744	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.56	0.42	0.17	0.68	0.69	0.87	0.05	0.05	0.03

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1056	62	110	445	19	331	10	500	11	7	7
Future Volume (veh/h)	25	1056	62	110	445	19	331	10	500	11	7	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	27	1148	67	124	500	21	439	0	649	14	15	11
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.77	0.77	0.77	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	350	1475	86	561	2208	92	577	0	752	54	54	48
Arrive On Green	0.20	0.30	0.30	0.67	0.88	0.88	0.17	0.00	0.17	0.03	0.03	0.03
Sat Flow, veh/h	1781	4917	287	1668	5019	209	3337	0	1460	1781	1752	1561
Grp Volume(v), veh/h	27	795	420	124	338	183	439	0	649	14	15	11
Grp Sat Flow(s),veh/h/ln	1781	1702	1800	1668	1702	1824	1668	0	1460	1781	1752	1561
Q Serve(g_s), s	1.2	21.3	21.3	2.9	1.5	1.5	12.5	0.0	4.6	0.8	0.8	0.7
Cycle Q Clear(g_c), s	1.2	21.3	21.3	2.9	1.5	1.5	12.5	0.0	4.6	0.8	0.8	0.7
Prop In Lane	1.00		0.16	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	350	1021	540	561	1498	802	577	0	752	54	54	48
V/C Ratio(X)	0.08	0.78	0.78	0.22	0.23	0.23	0.76	0.00	0.86	0.26	0.28	0.23
Avail Cap(c_a), veh/h	350	1021	540	561	1498	802	667	0	791	285	280	250
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.89	0.89	0.89	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.8	32.0	32.0	11.3	3.4	3.5	39.4	0.0	21.4	47.4	47.4	47.3
Incr Delay (d2), s/veh	0.1	5.4	9.8	0.2	0.3	0.6	4.4	0.0	9.4	2.5	2.8	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	14.0	15.5	1.8	0.9	1.1	9.3	0.0	20.6	0.7	0.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	37.4	41.8	11.5	3.8	4.0	43.8	0.0	30.8	49.8	50.2	49.8
LnGrp LOS	C	D	D	B	A	A	D	A	C	D	D	D
Approach Vol, veh/h		1242			645			1088			40	
Approach Delay, s/veh		38.8			5.3			36.0			49.9	
Approach LOS		D			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	37.6	34.0		7.1	23.6	48.0		21.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	18.0	30.0		16.0	4.0	44.0		20.0				
Max Q Clear Time (g_c+I1), s	4.9	23.3		2.8	3.2	3.5		14.5				
Green Ext Time (p_c), s	0.3	4.1		0.1	0.0	3.7		2.8				

Intersection Summary			
HCM 6th Ctrl Delay		30.8	
HCM 6th LOS		C	

Notes

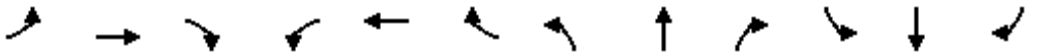
User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	100.0	90.0	100.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	0.1	8.0	0.1	12.0
Right Corner Size B (ft)	6.0	0.1	10.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.60	0.80	1.00	1.20
Ped. Left-Right Flow Rate (p/h)	0	0	3	1
Ped. Right-Left Flow Rate (p/h)	2	0	8	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21.6	668.2	44.2	270.0
Right Corner Quality of Service	D	A	B	A
Ped. Circulation Area (sq.ft)	6056.1	0.0	1035.7	11234.4
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.96	3.01	2.81	2.17
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	20	11	0	0
Total Flow Rate (veh/h)	1242	645	1092	39
Effct. Green for Bike (s)	43.6	60.4	18.5	8.1
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	872	1208	370	162
Bicycle Delay (s/bike)	16.1	7.9	33.2	42.2
Bicycle Compliance	Fair	Good	Poor	Poor
Bicycle LOS Score	1.95	1.62	3.70	2.94
Bicycle LOS	B	B	D	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	610	1343	667	114	203
v/c Ratio	0.71	0.52	0.46	0.38	0.67
Control Delay	26.9	3.9	22.9	36.6	38.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.9	3.9	22.9	36.6	38.1
Queue Length 50th (ft)	188	84	144	66	96
Queue Length 95th (ft)	125	94	248	91	133
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	859	2600	1453	557	521
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.71	0.52	0.46	0.20	0.39

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	482	1061	0	0	476	104	100	3	176	0	0	0
Future Volume (veh/h)	482	1061	0	0	476	104	100	3	176	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	610	1343	0	0	547	120	114	3	200			
Peak Hour Factor	0.79	0.79	0.79	0.87	0.87	0.87	0.88	0.88	0.88			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1379	2616	0	0	780	170	307	4	267			
Arrive On Green	0.85	1.00	0.00	0.00	0.27	0.27	0.18	0.18	0.18			
Sat Flow, veh/h	3237	3647	0	0	2983	631	1668	22	1449			
Grp Volume(v), veh/h	610	1343	0	0	335	332	114	0	203			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1745	1668	0	1471			
Q Serve(g_s), s	4.5	0.0	0.0	0.0	17.0	17.1	6.0	0.0	13.1			
Cycle Q Clear(g_c), s	4.5	0.0	0.0	0.0	17.0	17.1	6.0	0.0	13.1			
Prop In Lane	1.00		0.00	0.00		0.36	1.00		0.99			
Lane Grp Cap(c), veh/h	1379	2616	0	0	480	471	307	0	271			
V/C Ratio(X)	0.44	0.51	0.00	0.00	0.70	0.70	0.37	0.00	0.75			
Avail Cap(c_a), veh/h	1379	2616	0	0	480	471	567	0	500			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.70	0.70	0.00	0.00	0.96	0.96	1.00	0.00	1.00			
Uniform Delay (d), s/veh	4.6	0.0	0.0	0.0	32.8	32.9	35.7	0.0	38.6			
Incr Delay (d2), s/veh	0.2	0.5	0.0	0.0	7.9	8.2	0.7	0.0	4.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.0	0.3	0.0	0.0	12.7	12.7	4.5	0.0	8.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.7	0.5	0.0	0.0	40.8	41.1	36.5	0.0	42.8			
LnGrp LOS	A	A	A	A	D	D	D	A	D			
Approach Vol, veh/h		1953			667			317				
Approach Delay, s/veh		1.8			40.9			40.5				
Approach LOS		A			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.6			46.6	31.0		22.4				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			27.0	27.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			6.5	19.1		15.1				
Green Ext Time (p_c), s		15.2			2.9	2.6		1.7				
Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	100.0	55.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0	0.1
Right Corner Size B (ft)	6.0	6.0	6.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	3548.2	4628.6	1884.6	0.0
Right Corner Quality of Service	A	A	A	-
Ped. Circulation Area (sq.ft)	0.0	1347.2	1252.8	0.0
Crosswalk Circulation Code	-	A	A	-
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.96	2.79	1.99	2.09
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	7	12	0	0
Total Flow Rate (veh/h)	1953	667	317	0
Effct. Green for Bike (s)	73.5	42.5	18.5	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1470	850	370	0
Bicycle Delay (s/bike)	3.5	16.6	33.2	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.73	1.59	2.25	0.00
Bicycle LOS	C	B	B	

Intersection	
Intersection Delay, s/veh	3.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	23	106	122	17
Demand Flow Rate, veh/h	23	108	124	17
Vehicles Circulating, veh/h	104	15	25	108
Vehicles Exiting, veh/h	21	134	102	15
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.1	3.3	3.5	3.0
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	23	108	124	17
Cap Entry Lane, veh/h	1241	1359	1345	1236
Entry HV Adj Factor	0.989	0.979	0.983	0.994
Flow Entry, veh/h	23	106	122	17
Cap Entry, veh/h	1227	1331	1322	1229
V/C Ratio	0.019	0.079	0.092	0.014
Control Delay, s/veh	3.1	3.3	3.5	3.0
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	2	412	332	2	748	285	141	458
v/c Ratio	0.01	0.85	0.21	0.04	0.92	0.36	0.72	0.43
Control Delay	0.0	61.0	0.3	66.5	52.4	8.2	75.1	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	61.0	0.3	66.5	52.4	8.2	75.1	19.4
Queue Length 50th (ft)	0	298	0	2	521	28	105	169
Queue Length 95th (ft)	0	#513	0	12	#1109	121	#248	444
Internal Link Dist (ft)	160	615			469			438
Turn Bay Length (ft)			180	120		370	490	
Base Capacity (vph)	540	486	1583	57	810	796	214	1071
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.85	0.21	0.04	0.92	0.36	0.66	0.43

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	319	2	259	2	703	268	124	402	1
Future Volume (veh/h)	0	0	1	319	2	259	2	703	268	124	402	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	2	409	3	0	2	748	0	141	457	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.94	0.94	0.94	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	3	455	3		4	811		172	985	2
Arrive On Green	0.00	0.00	0.00	0.26	0.26	0.00	0.00	0.43	0.00	0.10	0.53	0.53
Sat Flow, veh/h	0	0	1585	1769	13	1585	1781	1870	1585	1781	1865	4
Grp Volume(v), veh/h	0	0	2	412	0	0	2	748	0	141	0	458
Grp Sat Flow(s),veh/h/ln	0	0	1585	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.1	23.4	0.0	0.0	0.1	39.5	0.0	8.1	0.0	16.0
Cycle Q Clear(g_c), s	0.0	0.0	0.1	23.4	0.0	0.0	0.1	39.5	0.0	8.1	0.0	16.0
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	3	459	0		4	811		172	0	987
V/C Ratio(X)	0.00	0.00	0.58	0.90	0.00		0.52	0.92		0.82	0.00	0.46
Avail Cap(c_a), veh/h	0	0	409	579	0		68	965		255	0	987
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	52.2	37.5	0.0	0.0	52.1	28.0	0.0	46.4	0.0	15.4
Incr Delay (d2), s/veh	0.0	0.0	103.0	14.4	0.0	0.0	80.0	12.6	0.0	12.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.3	17.0	0.0	0.0	0.2	25.7	0.0	7.2	0.0	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	155.2	52.0	0.0	0.0	132.1	40.5	0.0	58.6	0.0	15.8
LnGrp LOS	A	A	F	D	A		F	D		E	A	B
Approach Vol, veh/h		2			412	A		750	A		599	
Approach Delay, s/veh		155.2			52.0			40.8			25.8	
Approach LOS		F			D			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.1	51.4		5.2	5.2	61.2		32.9				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	54.0		27.0	4.0	54.0		34.0				
Max Q Clear Time (g_c+I1), s	10.1	41.5		2.1	2.1	18.0		25.4				
Green Ext Time (p_c), s	0.2	3.9		0.0	0.0	2.8		1.6				

Intersection Summary			
HCM 6th Ctrl Delay		38.5	
HCM 6th LOS		D	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	1	1	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	9.0	183150.0	53465.9	-86.0
Right Corner Quality of Service	E	A	A	F
Ped. Circulation Area (sq.ft)	0.2	8544.3	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	76.0	67.3	67.3	76.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.40	2.76	2.88
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	15	4	7
Total Flow Rate (veh/h)	2	744	1035	599
Effct. Green for Bike (s)	9.1	34.3	54.5	72.1
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	120	451	717	949
Bicycle Delay (s/bike)	67.2	45.9	31.3	21.1
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.71	3.93	3.05	1.90
Bicycle LOS	C	D	C	B

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	87	168	1152	765	31
Future Vol, veh/h	11	87	168	1152	765	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	94	181	1239	823	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1822	428	856	0	-	0
Stage 1	840	-	-	-	-	-
Stage 2	982	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	69	575	780	-	-	-
Stage 1	384	-	-	-	-	-
Stage 2	323	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	53	575	780	-	-	-
Mov Cap-2 Maneuver	53	-	-	-	-	-
Stage 1	295	-	-	-	-	-
Stage 2	323	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.4	1.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	780	-	53	575	-	-
HCM Lane V/C Ratio	0.232	-	0.223	0.163	-	-
HCM Control Delay (s)	11	-	91.5	12.5	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	0.9	-	0.8	0.6	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	1792436.4	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	1917	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.97	
Delay for adq Gap	1792438.25	
Avg Ped Delay (s)	1792436.38	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	228.3	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	765	1152
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.97	0.98
Prob of Blocked Lane	0.81	0.84
Delay for adq Gap	120.37	114.90
Avg Ped Delay (s)	116.23	112.06

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	156	57	1329	121	38	886
v/c Ratio	0.27	0.19	0.63	0.13	0.14	0.38
Control Delay	24.3	8.3	14.3	3.4	7.1	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	8.3	14.3	3.4	7.1	6.8
Queue Length 50th (ft)	23	0	103	0	4	57
Queue Length 95th (ft)	39	13	#513	32	23	193
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1435	683	2120	952	433	2874
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.08	0.63	0.13	0.09	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	106	39	1276	116	35	815
Future Volume (veh/h)	106	39	1276	116	35	815
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	156	57	1329	121	38	886
Peak Hour Factor	0.68	0.68	0.96	0.96	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	319	146	2016	869	301	2517
Arrive On Green	0.09	0.09	0.57	0.57	0.03	0.71
Sat Flow, veh/h	3456	1585	3647	1531	1781	3647
Grp Volume(v), veh/h	156	57	1329	121	38	886
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1531	1781	1777
Q Serve(g_s), s	2.4	1.9	14.3	2.0	0.4	5.3
Cycle Q Clear(g_c), s	2.4	1.9	14.3	2.0	0.4	5.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	319	146	2016	869	301	2517
V/C Ratio(X)	0.49	0.39	0.66	0.14	0.13	0.35
Avail Cap(c_a), veh/h	1692	776	2255	972	632	3158
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	23.6	8.2	5.6	6.4	3.1
Incr Delay (d2), s/veh	1.2	1.7	1.0	0.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	0.1	7.6	1.0	0.1	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.9	25.2	9.2	5.8	6.5	3.3
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	213		1450			924
Approach Delay, s/veh	25.0		8.9			3.4
Approach LOS	C		A			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		45.1		10.1	7.8	37.3
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		49.0		27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		7.3		4.4	2.4	16.3
Green Ext Time (p_c), s		13.3		0.9	0.0	15.0

Intersection Summary	
HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	48.6	72.1	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	7	0	5
Ped. Right-Left Flow Rate (p/h)	4	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	4524.3	6041.8	14580.0
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	F	-	F
Pedestrian Delay (s/p)	45.5	45.5	45.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	2.80	2.99
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	2	8	6
Total Flow Rate (veh/h)	213	1450	924
Effct. Green for Bike (s)	11.2	40.1	44.5
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	246	881	978
Bicycle Delay (s/bike)	35.0	14.3	11.9
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	2.81	2.23	1.30
Bicycle LOS	C	B	A

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	58	1339	47	40	876
Future Vol, veh/h	19	58	1339	47	40	876
Conflicting Peds, #/hr	0	0	0	19	19	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	76	1424	50	43	932

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2020	756	0	0	1493	0
Stage 1	1468	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	68	301	-	-	225	-
Stage 1	126	-	-	-	-	-
Stage 2	524	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	54	296	-	-	221	-
Mov Cap-2 Maneuver	54	-	-	-	-	-
Stage 1	124	-	-	-	-	-
Stage 2	422	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	45.6	0	1.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	54	296	221	-
HCM Lane V/C Ratio	-	-	0.463	0.258	0.193	-
HCM Control Delay (s)	-	-	119.6	21.3	25.1	-
HCM Lane LOS	-	-	F	C	D	-
HCM 95th %tile Q(veh)	-	-	1.7	1	0.7	-

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	1900.6	
Level of Service	F	

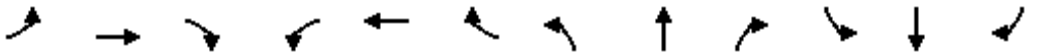
Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	1339	876
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	1.00	0.99
Prob of Blocked Lane	0.88	0.88
Delay for adq Gap	1648.95	258.21
Avg Ped Delay (s)	1646.29	254.36

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	76510776.0
Level of Service	F

Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2215
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	76510776.00
Avg Ped Delay (s)	76510776.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	31	77	66	31	127	1529	14	926	20
v/c Ratio	0.12	0.17	0.24	0.07	0.26	0.44	0.05	0.63	0.03
Control Delay	23.2	0.9	25.0	0.3	7.1	9.2	7.5	18.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.2	0.9	25.0	0.3	7.1	9.2	7.5	18.9	0.1
Queue Length 50th (ft)	10	0	22	0	12	77	1	128	0
Queue Length 95th (ft)	28	0	48	0	60	310	12	318	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	516	709	545	692	762	3536	445	1848	871
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.11	0.12	0.04	0.17	0.43	0.03	0.50	0.02

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	4	63	38	14	25	116	1339	53	13	861	19
Future Volume (veh/h)	21	4	63	38	14	25	116	1339	53	13	861	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.97	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	5	77	48	18	31	127	1471	58	14	926	20
Peak Hour Factor	0.82	0.82	0.82	0.80	0.80	0.80	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	11	477	97	22	471	341	2204	87	199	1305	548
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.08	0.44	0.44	0.01	0.37	0.37
Sat Flow, veh/h	5	37	1557	5	72	1538	1781	5028	198	1781	3554	1492
Grp Volume(v), veh/h	31	0	77	66	0	31	127	996	533	14	926	20
Grp Sat Flow(s),veh/h/ln	42	0	1557	77	0	1538	1781	1702	1822	1781	1777	1492
Q Serve(g_s), s	0.1	0.0	2.4	0.1	0.0	0.9	2.6	15.2	15.2	0.3	14.6	0.6
Cycle Q Clear(g_c), s	20.0	0.0	2.4	20.0	0.0	0.9	2.6	15.2	15.2	0.3	14.6	0.6
Prop In Lane	0.84		1.00	0.73		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	114	0	477	119	0	471	341	1492	799	199	1305	548
V/C Ratio(X)	0.27	0.00	0.16	0.56	0.00	0.07	0.37	0.67	0.67	0.07	0.71	0.04
Avail Cap(c_a), veh/h	115	0	477	119	0	471	742	1513	810	453	1579	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	0.0	16.5	26.2	0.0	16.0	12.3	14.5	14.5	13.6	17.7	13.2
Incr Delay (d2), s/veh	1.7	0.0	0.2	6.8	0.0	0.1	1.4	1.4	2.6	0.1	1.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.0	1.5	2.2	0.0	0.6	1.7	8.6	9.4	0.2	9.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.3	0.0	16.7	33.1	0.0	16.1	13.7	15.9	17.1	13.7	19.5	13.3
LnGrp LOS	C	A	B	C	A	B	B	B	B	B	B	B
Approach Vol, veh/h		108			97			1656			960	
Approach Delay, s/veh		19.8			27.7			16.2			19.3	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	30.0		25.0	5.7	34.6		25.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	29.0		20.0	10.0	29.0		20.0				
Max Q Clear Time (g_c+I1), s	4.6	16.6		22.0	2.3	17.2		22.0				
Green Ext Time (p_c), s	0.7	7.4		0.0	0.0	9.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		17.7	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	11	0	8
Ped. Right-Left Flow Rate (p/h)	1	12	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	196591.6	14365.2	25624.9	28061.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	6140.9	799.0	0.0	699.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	1.98	3.12	3.11
Pedestrian Crosswalk LOS	B	B	C	C

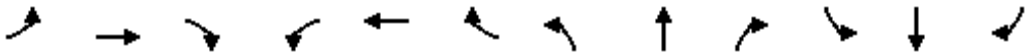
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	3	10	9
Total Flow Rate (veh/h)	108	97	1656	960
Effct. Green for Bike (s)	11.9	11.9	42.0	25.5
Cross Street Width (ft)	80.0	80.0	36.0	40.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	280	280	988	600
Bicycle Delay (s/bike)	31.4	31.5	10.9	20.9
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.96	2.94	3.02	1.89
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	73	162	408	277	260	115	1051	351	342	725
v/c Ratio	1.20	0.36	0.50	0.68	0.48	0.42	0.99	0.40	0.65	0.99
Control Delay	216.8	35.4	42.2	44.7	7.7	51.5	74.0	3.3	54.1	79.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	216.8	35.4	42.2	44.7	7.7	51.5	74.0	3.3	54.1	79.0
Queue Length 50th (ft)	~71	92	144	180	0	83	~316	0	131	~311
Queue Length 95th (ft)	#142	132	194	284	72	143	#417	50	182	#445
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	61	453	857	429	554	294	1058	894	571	731
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.20	0.36	0.48	0.65	0.47	0.39	0.99	0.39	0.60	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	81	45	375	126	368	108	988	330	325	646	43
Future Volume (veh/h)	57	81	45	375	126	368	108	988	330	325	646	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	104	58	408	334	268	115	1051	351	342	680	45
Peak Hour Factor	0.78	0.78	0.78	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	166	92	949	498	404	268	1313	819	480	829	55
Arrive On Green	0.15	0.15	0.15	0.27	0.27	0.27	0.15	0.26	0.26	0.14	0.25	0.25
Sat Flow, veh/h	1781	1102	614	3563	1870	1518	1781	5106	1543	3456	3373	223
Grp Volume(v), veh/h	73	0	162	408	334	268	115	1051	351	342	358	367
Grp Sat Flow(s),veh/h/ln	1781	0	1716	1781	1870	1518	1781	1702	1543	1728	1777	1819
Q Serve(g_s), s	3.5	0.0	8.5	9.1	15.3	15.1	5.6	18.5	13.5	9.1	18.3	18.3
Cycle Q Clear(g_c), s	3.5	0.0	8.5	9.1	15.3	15.1	5.6	18.5	13.5	9.1	18.3	18.3
Prop In Lane	1.00		0.36	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	268	0	258	949	498	404	268	1313	819	480	437	447
V/C Ratio(X)	0.27	0.00	0.63	0.43	0.67	0.66	0.43	0.80	0.43	0.71	0.82	0.82
Avail Cap(c_a), veh/h	556	0	536	1113	584	474	371	1329	824	720	463	474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	0.0	38.3	29.2	31.5	31.4	37.1	33.4	14.1	39.5	34.2	34.2
Incr Delay (d2), s/veh	0.4	0.0	1.9	1.1	5.8	6.8	0.4	5.2	1.6	6.9	15.7	15.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	0.0	6.6	6.9	11.7	10.0	4.3	12.4	12.3	7.4	14.3	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.6	0.0	40.2	30.3	37.3	38.2	37.5	38.6	15.8	46.4	49.9	49.7
LnGrp LOS	D	A	D	C	D	D	D	D	B	D	D	D
Approach Vol, veh/h		235			1010			1517			1067	
Approach Delay, s/veh		39.0			34.7			33.2			48.7	
Approach LOS		D			C			C			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		19.4	18.4	27.6		30.6	17.3	28.7				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		30.0	20.0	25.0		30.0	20.0	25.0				
Max Q Clear Time (g_c+I1), s		10.5	7.6	20.3		17.3	11.1	20.5				
Green Ext Time (p_c), s		1.0	0.1	3.3		8.3	2.3	4.2				

Intersection Summary												
HCM 6th Ctrl Delay			38.3									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

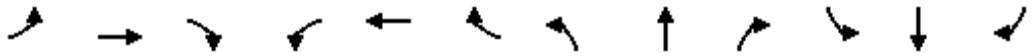
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	3	3	10
Ped. Right-Left Flow Rate (p/h)	5	1	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53572.2	24545.0	7429.8	21034.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1234.7	2379.2	2056.0	351.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	51.0	51.0	53.8	53.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.14	3.05	3.17	3.41
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	14	7	3
Total Flow Rate (veh/h)	235	945	1517	1067
Effct. Green for Bike (s)	30.1	28.6	25.0	25.0
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	489	465	407	407
Bicycle Delay (s/bike)	35.2	36.5	39.2	39.1
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.22	4.31	2.10	2.48
Bicycle LOS	C	D	B	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	399	327	160	42	140	514	936	153	930
v/c Ratio	0.68	0.73	0.62	0.17	0.41	0.70	0.51	0.42	0.74
Control Delay	45.8	22.4	52.6	37.9	9.0	41.2	26.6	46.7	38.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.8	22.4	52.6	37.9	9.0	41.2	26.6	46.7	38.0
Queue Length 50th (ft)	105	51	84	22	0	136	148	41	171
Queue Length 95th (ft)	#242	161	203	57	44	256	283	96	#370
Internal Link Dist (ft)		461		455			697		1255
Turn Bay Length (ft)	250		295		50	300		160	
Base Capacity (vph)	680	690	350	627	621	1511	2625	566	1258
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.47	0.46	0.07	0.23	0.34	0.36	0.27	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	359	40	255	144	38	126	499	894	14	139	703	143
Future Volume (veh/h)	359	40	255	144	38	126	499	894	14	139	703	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	399	44	283	160	42	140	514	922	14	153	773	157
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	499	51	326	198	382	317	654	1829	28	233	982	197
Arrive On Green	0.14	0.24	0.24	0.11	0.20	0.20	0.19	0.35	0.35	0.07	0.23	0.23
Sat Flow, veh/h	3456	214	1375	1781	1870	1551	3456	5180	79	3456	4243	853
Grp Volume(v), veh/h	399	0	327	160	42	140	514	606	330	153	619	311
Grp Sat Flow(s),veh/h/ln	1728	0	1588	1781	1870	1551	1728	1702	1854	1728	1702	1692
Q Serve(g_s), s	10.2	0.0	18.0	8.0	1.7	7.2	12.9	12.8	12.8	3.9	15.5	15.8
Cycle Q Clear(g_c), s	10.2	0.0	18.0	8.0	1.7	7.2	12.9	12.8	12.8	3.9	15.5	15.8
Prop In Lane	1.00		0.87	1.00		1.00	1.00		0.04	1.00		0.50
Lane Grp Cap(c), veh/h	499	0	377	198	382	317	654	1202	655	233	788	392
V/C Ratio(X)	0.80	0.00	0.87	0.81	0.11	0.44	0.79	0.50	0.50	0.66	0.79	0.80
Avail Cap(c_a), veh/h	683	0	523	352	616	511	1518	1383	753	569	822	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	0.0	33.3	39.5	29.5	31.7	35.2	23.2	23.2	41.4	32.9	33.0
Incr Delay (d2), s/veh	4.7	0.0	10.9	7.5	0.1	1.0	2.1	1.0	1.7	3.1	6.4	12.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.1	0.0	12.6	7.0	1.4	5.0	9.1	8.5	9.3	3.1	11.0	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	0.0	44.2	47.0	29.6	32.7	37.3	24.1	24.9	44.5	39.3	45.9
LnGrp LOS	D	A	D	D	C	C	D	C	C	D	D	D
Approach Vol, veh/h		726			342			1450			1083	
Approach Delay, s/veh		43.2			39.0			29.0			41.9	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.2	27.1	15.1	26.6	11.2	38.2	18.2	23.6
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	40.0	22.0	18.0	30.0	15.0	37.0	18.0	30.0
Max Q Clear Time (g_c+I1), s	14.9	17.8	10.0	20.0	5.9	14.8	12.2	9.2
Green Ext Time (p_c), s	2.3	3.1	0.3	1.6	0.3	11.9	1.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	36.7
HCM 6th LOS	D

Notes

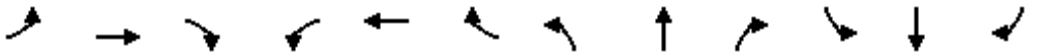
User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	90.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	5	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	7.0	12.0	7.0	7.0
Right Corner Size B (ft)	13.0	10.0	7.0	7.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	91.00	120.00	49.00	49.00
Ped. Left-Right Flow Rate (p/h)	0	5	0	0
Ped. Right-Left Flow Rate (p/h)	2	2	0	5
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	40879.0	8988.2	6249.3	6249.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3222.8	1313.6	0.0	1790.6
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	56.8	56.8	65.5	56.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.64	2.44	3.24	3.22
Pedestrian Crosswalk LOS	C	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	3	3	3
Total Flow Rate (veh/h)	726	342	1450	1083
Effct. Green for Bike (s)	15.1	12.7	33.8	23.6
Cross Street Width (ft)	100.0	99.0	68.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	231	194	516	360
Bicycle Delay (s/bike)	51.3	53.5	36.1	44.1
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	4.29	2.35	2.11	1.79
Bicycle LOS	D	B	B	B

Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	53	101	68	84	116	1608	32	1262	60
v/c Ratio	0.25	0.26	0.33	0.24	0.29	0.65	0.20	0.58	0.06
Control Delay	31.7	3.7	33.4	2.8	31.9	10.3	35.7	12.6	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	3.7	33.4	2.8	31.9	10.3	35.7	12.6	2.4
Queue Length 50th (ft)	19	0	25	0	22	155	12	192	0
Queue Length 95th (ft)	56	16	57	9	52	393	42	292	14
Internal Link Dist (ft)				233		1200		376	
Turn Bay Length (ft)	100	100			200		100		100
Base Capacity (vph)	667	883	717	876	502	2489	166	2432	1109
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.11	0.09	0.10	0.23	0.65	0.19	0.52	0.05

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	0	93	52	0	65	107	1417	46	29	1136	55
Future Volume (veh/h)	49	0	93	52	0	65	107	1417	46	29	1136	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	0	101	68	0	84	116	1557	51	32	1262	60
Peak Hour Factor	0.92	0.92	0.92	0.77	0.92	0.77	0.92	0.91	0.91	0.90	0.90	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	257	293	249	316	0	249	284	1986	65	73	1865	828
Arrive On Green	0.16	0.00	0.16	0.16	0.00	0.16	0.08	0.57	0.57	0.04	0.52	0.52
Sat Flow, veh/h	1314	1870	1585	1294	0	1585	3456	3508	115	1781	3554	1579
Grp Volume(v), veh/h	53	0	101	68	0	84	116	786	822	32	1262	60
Grp Sat Flow(s),veh/h/ln	1314	1870	1585	1294	0	1585	1728	1777	1846	1781	1777	1579
Q Serve(g_s), s	2.4	0.0	3.6	3.0	0.0	3.0	2.0	21.9	22.1	1.1	16.6	1.2
Cycle Q Clear(g_c), s	5.4	0.0	3.6	3.0	0.0	3.0	2.0	21.9	22.1	1.1	16.6	1.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	257	293	249	316	0	249	284	1006	1045	73	1865	828
V/C Ratio(X)	0.21	0.00	0.41	0.22	0.00	0.34	0.41	0.78	0.79	0.44	0.68	0.07
Avail Cap(c_a), veh/h	736	975	826	786	0	824	517	1285	1334	171	2379	1057
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	24.1	23.8	0.0	23.8	27.7	10.7	10.8	29.7	11.1	7.5
Incr Delay (d2), s/veh	0.4	0.0	1.1	0.3	0.0	0.8	0.9	2.5	2.5	4.2	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	2.5	1.6	0.0	2.0	1.4	10.6	11.1	0.9	8.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	0.0	25.2	24.2	0.0	24.6	28.6	13.2	13.2	33.9	11.7	7.5
LnGrp LOS	C	A	C	C	A	C	C	B	B	C	B	A
Approach Vol, veh/h		154			152			1724			1354	
Approach Delay, s/veh		25.7			24.4			14.2			12.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	41.7		14.7	9.7	39.1		14.7				
Change Period (Y+Rc), s	4.5	5.8		* 4.7	4.5	5.8		* 4.7				
Max Green Setting (Gmax), s	6.1	45.9		* 33	9.5	42.5		* 33				
Max Q Clear Time (g_c+I1), s	3.1	24.1		7.4	4.0	18.6		5.0				
Green Ext Time (p_c), s	0.0	11.8		0.6	0.2	10.0		0.7				

Intersection Summary			
HCM 6th Ctrl Delay		14.3	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

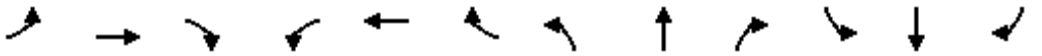
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.3	36.0	72.5	71.7
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	50.0	50.0	50.0	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.38	2.03	3.24	3.21
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	154	152	1724	1354
Effct. Green for Bike (s)	10.8	9.7	47.1	41.0
Cross Street Width (ft)	72.5	83.8	36.0	60.5
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	216	194	942	820
Bicycle Delay (s/bike)	39.8	40.8	14.0	17.4
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.92	3.09	3.53	3.60
Bicycle LOS	C	C	D	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	24	7	52	110	57	52	1668	41	28	1409	33
v/c Ratio	0.15	0.03	0.20	0.68	0.24	0.19	0.68	0.04	0.12	0.59	0.03
Control Delay	37.6	34.5	3.7	59.6	13.2	3.0	12.6	0.7	4.4	10.7	0.1
Queue Delay	0.0	0.0	0.1	0.4	0.0	0.0	10.3	0.0	0.0	0.0	0.0
Total Delay	37.6	34.5	3.8	60.0	13.2	3.0	22.9	0.7	4.4	10.7	0.1
Queue Length 50th (ft)	13	4	0	65	1	2	455	0	3	223	0
Queue Length 95th (ft)	32	14	6	103	29	m4	590	m2	11	356	1
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	451	627	594	472	573	344	2469	1092	285	2407	1085
Starvation Cap Reductn	0	0	0	0	0	0	791	0	0	0	0
Spillback Cap Reductn	0	0	152	133	0	0	0	0	0	58	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.01	0.12	0.32	0.10	0.15	0.99	0.04	0.10	0.60	0.03

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	6	43	91	2	46	49	1568	39	27	1339	31
Future Volume (veh/h)	20	6	43	91	2	46	49	1568	39	27	1339	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	7	0	110	2	55	52	1668	41	28	1409	33
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	192		216	6	158	326	2493	1083	301	2451	1076
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.05	0.93	0.93	0.03	0.69	0.69
Sat Flow, veh/h	1346	1870	1585	1409	56	1538	1781	3554	1544	1781	3554	1560
Grp Volume(v), veh/h	24	7	0	110	0	57	52	1668	41	28	1409	33
Grp Sat Flow(s),veh/h/ln	1346	1870	1585	1409	0	1594	1781	1777	1544	1781	1777	1560
Q Serve(g_s), s	1.6	0.3	0.0	7.2	0.0	3.2	0.8	8.0	0.2	0.4	19.4	0.6
Cycle Q Clear(g_c), s	4.8	0.3	0.0	7.6	0.0	3.2	0.8	8.0	0.2	0.4	19.4	0.6
Prop In Lane	1.00		1.00	1.00		0.96	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	192		216	0	163	326	2493	1083	301	2451	1076
V/C Ratio(X)	0.14	0.04		0.51	0.00	0.35	0.16	0.67	0.04	0.09	0.57	0.03
Avail Cap(c_a), veh/h	484	630		546	0	537	424	2493	1083	421	2451	1076
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.59	0.59	0.59	0.82	0.82	0.82
Uniform Delay (d), s/veh	41.9	38.4	0.0	41.8	0.0	39.7	5.8	1.2	1.0	4.1	7.6	4.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.7	0.0	0.5	0.0	0.9	0.0	0.1	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	0.3	0.0	4.6	0.0	2.3	0.3	2.2	0.1	0.2	9.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	38.4	0.0	42.5	0.0	40.1	5.9	2.1	1.0	4.2	8.4	4.7
LnGrp LOS	D	D		D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		31	A		167			1761			1470	
Approach Delay, s/veh		41.2			41.7			2.2			8.2	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.7	71.5		14.7	7.6	72.6		14.7				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	9.0	38.0		32.0	9.0	38.0		32.0				
Max Q Clear Time (g_c+I1), s	2.8	21.4		9.6	2.4	10.0		6.8				
Green Ext Time (p_c), s	0.0	14.7		0.2	0.0	25.6		0.0				

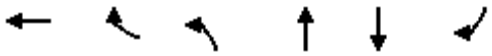
Intersection Summary			
HCM 6th Ctrl Delay		7.0	
HCM 6th LOS		A	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	39.8	39.8	39.8	39.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.48	2.09	3.39	3.26
Pedestrian Crosswalk LOS	B	B	C	C

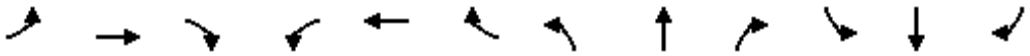
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	4
Total Flow Rate (veh/h)	83	167	1761	1470
Effct. Green for Bike (s)	11.0	11.0	66.3	64.6
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	7.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	232	232	1396	1360
Bicycle Delay (s/bike)	37.1	37.1	4.4	4.9
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.01	3.21	2.05	0.78
Bicycle LOS	C	C	B	A



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	222	433	59	1463	850	684
v/c Ratio	0.40	0.80	0.43	0.73	0.52	0.74
Control Delay	24.7	34.7	55.0	13.5	20.3	13.1
Queue Delay	0.0	0.1	0.0	47.0	0.5	0.4
Total Delay	24.7	34.8	55.0	60.5	20.7	13.5
Queue Length 50th (ft)	101	198	34	217	128	33
Queue Length 95th (ft)	132	258	m61	#376	220	#250
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	762	716	142	2014	1640	927
Starvation Cap Reductn	0	0	0	0	353	40
Spillback Cap Reductn	0	13	0	680	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.62	0.42	1.10	0.66	0.77

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



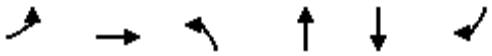
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	196	2	385	51	1273	0	0	782	629
Future Volume (veh/h)	0	0	0	196	2	385	51	1273	0	0	782	629
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				220	2	433	59	1463	0	0	850	684
Peak Hour Factor				0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				548	5	492	74	2040	0	0	1733	705
Arrive On Green				0.33	0.33	0.33	0.04	0.57	0.00	0.00	0.98	0.98
Sat Flow, veh/h				1654	15	1485	1668	3647	0	0	3647	1446
Grp Volume(v), veh/h				222	0	433	59	1463	0	0	850	684
Grp Sat Flow(s),veh/h/ln				1669	0	1485	1668	1777	0	0	1777	1446
Q Serve(g_s), s				9.7	0.0	26.2	3.3	28.3	0.0	0.0	1.1	20.7
Cycle Q Clear(g_c), s				9.7	0.0	26.2	3.3	28.3	0.0	0.0	1.1	20.7
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				553	0	492	74	2040	0	0	1733	705
V/C Ratio(X)				0.40	0.00	0.88	0.80	0.72	0.00	0.00	0.49	0.97
Avail Cap(c_a), veh/h				773	0	688	123	2040	0	0	1733	705
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.85	0.85	0.00	0.00	0.79	0.79
Uniform Delay (d), s/veh				24.5	0.0	30.0	45.0	14.6	0.0	0.0	0.6	0.9
Incr Delay (d2), s/veh				0.5	0.0	9.6	15.0	1.9	0.0	0.0	0.8	23.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				6.9	0.0	15.6	2.9	14.9	0.0	0.0	0.7	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.0	0.0	39.6	60.0	16.5	0.0	0.0	1.4	24.6
LnGrp LOS				C	A	D	E	B	A	A	A	C
Approach Vol, veh/h					655			1522			1534	
Approach Delay, s/veh					34.7			18.2			11.7	
Approach LOS					C			B			B	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	8.2	51.3				59.5		35.5				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	7.0	31.0				42.0		44.0				
Max Q Clear Time (g_c+I1), s	5.3	22.7				30.3		28.2				
Green Ext Time (p_c), s	0.0	5.3				7.4		3.3				

Intersection Summary		
HCM 6th Ctrl Delay		18.4
HCM 6th LOS		B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	630.0	133.2	11000.7	581.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.3	2436.3	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.23	2.22	3.07	3.32
Pedestrian Crosswalk LOS	B	B	C	C

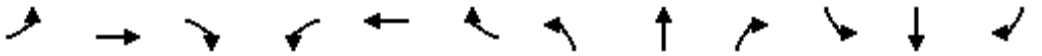
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	7
Total Flow Rate (veh/h)	0	655	1522	1534
Effct. Green for Bike (s)	0.0	31.9	54.1	44.0
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	672	1139	926
Bicycle Delay (s/bike)	0.0	21.0	8.8	13.7
Bicycle Compliance		Fair	Good	Fair
Bicycle LOS Score	0.00	2.62	2.19	1.94
Bicycle LOS		C	B	B



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	364	345	119	797	762	346
v/c Ratio	0.83	0.68	0.57	0.37	0.48	0.30
Control Delay	49.3	26.1	48.8	10.1	12.4	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.3	26.1	48.8	10.1	12.4	1.5
Queue Length 50th (ft)	208	121	68	124	135	25
Queue Length 95th (ft)	#350	223	118	162	103	0
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	475	544	228	2174	1589	1198
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.63	0.52	0.37	0.48	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	548	0	104	0	0	0	114	765	0	0	663	301
Future Volume (veh/h)	548	0	104	0	0	0	114	765	0	0	663	301
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	701	0	0	0	0	0	119	797	0	0	762	346
Peak Hour Factor	0.92	0.92	0.92	0.25	0.25	0.25	0.96	0.96	0.96	0.87	0.87	0.87
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	820	460	0	0	2	0	147	2306	0	0	1862	1122
Arrive On Green	0.25	0.00	0.00	0.00	0.00	0.00	0.09	0.65	0.00	0.00	0.35	0.35
Sat Flow, veh/h	3337	1870	0	0	1870	0	1668	3647	0	0	3647	1445
Grp Volume(v), veh/h	701	0	0	0	0	0	119	797	0	0	762	346
Grp Sat Flow(s),veh/h/ln	1668	1870	0	0	1870	0	1668	1777	0	0	1777	1445
Q Serve(g_s), s	19.1	0.0	0.0	0.0	0.0	0.0	6.7	9.6	0.0	0.0	15.4	8.5
Cycle Q Clear(g_c), s	19.1	0.0	0.0	0.0	0.0	0.0	6.7	9.6	0.0	0.0	15.4	8.5
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	820	460	0	0	2	0	147	2306	0	0	1862	1122
V/C Ratio(X)	0.85	0.00	0.00	0.00	0.00	0.00	0.81	0.35	0.00	0.00	0.41	0.31
Avail Cap(c_a), veh/h	1019	571	0	0	79	0	202	2306	0	0	1862	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.84	0.84
Uniform Delay (d), s/veh	34.2	0.0	0.0	0.0	0.0	0.0	42.5	7.5	0.0	0.0	19.7	4.8
Incr Delay (d2), s/veh	6.0	0.0	0.0	0.0	0.0	0.0	15.8	0.4	0.0	0.0	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.0	0.0	0.0	0.0	0.0	0.0	5.9	5.5	0.0	0.0	10.6	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.2	0.0	0.0	0.0	0.0	0.0	58.3	8.0	0.0	0.0	20.2	5.4
LnGrp LOS	D	A	A	A	A	A	E	A	A	A	C	A
Approach Vol, veh/h		701			0			916			1108	
Approach Delay, s/veh		40.2			0.0			14.5			15.6	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.9	55.8		27.4		67.6		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	11.5	33.0		29.0		48.0		4.0				
Max Q Clear Time (g_c+I1), s	8.7	17.4		21.1		11.6		0.0				
Green Ext Time (p_c), s	0.1	5.9		2.3		6.0		0.0				

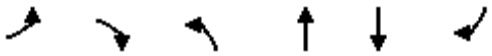
Intersection Summary			
HCM 6th Ctrl Delay		21.6	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

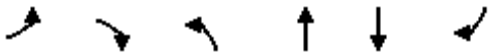
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	589815.0	7990.2	32375.7	589766.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	8363.4	1986.5	0.0	0.0
Crosswalk Circulation Code	A	A	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.56	1.43	2.84	3.04
Pedestrian Crosswalk LOS	C	A	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	8
Total Flow Rate (veh/h)	709	0	916	1108
Effct. Green for Bike (s)	26.6	4.6	58.4	42.7
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	560	97	1229	899
Bicycle Delay (s/bike)	24.6	43.0	7.1	14.5
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.80	1.39	2.10	2.24
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	677	74	30	253	490	750
v/c Ratio	0.52	0.11	0.10	0.32	0.72	0.65
Control Delay	21.0	10.5	9.7	12.3	25.7	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	10.5	9.7	12.3	25.7	6.5
Queue Length 50th (ft)	95	6	7	63	143	1
Queue Length 95th (ft)	234	42	17	98	315	230
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		100	200			
Base Capacity (vph)	1353	716	385	1704	1453	1183
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.10	0.08	0.15	0.34	0.63

Intersection Summary



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	623	68	26	220	470	720
Future Volume (veh/h)	623	68	26	220	470	720
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	677	74	30	253	490	750
Peak Hour Factor	0.92	0.92	0.87	0.87	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	941	449	269	1055	843	1125
Arrive On Green	0.27	0.27	0.03	0.56	0.45	0.45
Sat Flow, veh/h	3456	1648	1781	1870	1870	1539
Grp Volume(v), veh/h	677	74	30	253	490	750
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1539
Q Serve(g_s), s	13.0	2.5	0.6	5.0	14.3	19.3
Cycle Q Clear(g_c), s	13.0	2.5	0.6	5.0	14.3	19.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	941	449	269	1055	843	1125
V/C Ratio(X)	0.72	0.16	0.11	0.24	0.58	0.67
Avail Cap(c_a), veh/h	1180	563	456	1055	1277	1483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	20.3	10.9	8.1	15.0	5.5
Incr Delay (d2), s/veh	3.1	0.5	0.2	0.1	0.8	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.8	0.1	0.4	2.9	9.2	17.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.3	20.8	11.1	8.2	15.8	6.4
LnGrp LOS	C	C	B	A	B	A
Approach Vol, veh/h	751			283	1240	
Approach Delay, s/veh	26.6			8.5	10.1	
Approach LOS	C			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		47.3		25.9	8.3	39.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0		25.0	10.0	50.0
Max Q Clear Time (g_c+I1), s		7.0		15.0	2.6	21.3
Green Ext Time (p_c), s		1.7		5.0	0.0	11.7

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196586.8	0.0	196568.5
Right Corner Quality of Service	A	-	A
Ped. Circulation Area (sq.ft)	566.1	0.0	0.0
Crosswalk Circulation Code	A	-	-
Pedestrian Delay (s/p)	43.8	43.8	51.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.77	2.36	2.85
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	0	8	7
Total Flow Rate (veh/h)	751	283	1240
Effct. Green for Bike (s)	25.4	28.8	24.4
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	493	559	474
Bicycle Delay (s/bike)	29.2	26.8	30.1
Bicycle Compliance	Fair	Fair	Poor
Bicycle LOS Score	1.66	1.75	3.31
Bicycle LOS	B	B	C

Intersection	
Int Delay, s/veh	7.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	57	186	714	135	138	1138
Future Vol, veh/h	57	186	714	135	138	1138
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	100	-	-	215	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	100	100	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	214	714	135	148	1224

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1690	425	0	0	849	0
Stage 1	782	-	-	-	-	-
Stage 2	908	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	84	578	-	-	785	-
Stage 1	411	-	-	-	-	-
Stage 2	354	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	68	578	-	-	785	-
Mov Cap-2 Maneuver	68	-	-	-	-	-
Stage 1	411	-	-	-	-	-
Stage 2	287	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	58.6	0	1.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	68	578	785	-
HCM Lane V/C Ratio	-	-	0.963	0.37	0.189	-
HCM Control Delay (s)	-	-	201.5	14.8	10.7	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	4.8	1.7	0.7	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	34149.4
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	1852
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.91
Delay for adq Gap	34151.30
Avg Ped Delay (s)	34149.36

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	199346.6
Level of Service	F

Crosswalk	
Length (ft)	68
Lanes Crossed	4
Veh Vol Crossed	1852
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	22.43
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	199348.53
Avg Ped Delay (s)	199346.58

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	346	236	920	32	1070
v/c Ratio	0.74	0.43	0.47	0.11	0.54
Control Delay	35.2	8.9	9.7	9.2	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.2	8.9	9.7	9.2	10.9
Queue Length 50th (ft)	124	12	97	5	125
Queue Length 95th (ft)	289	76	197	23	248
Internal Link Dist (ft)	742		269		1054
Turn Bay Length (ft)		170		170	
Base Capacity (vph)	846	844	2962	435	3037
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.41	0.28	0.31	0.07	0.35

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	308	210	743	131	29	974
Future Volume (veh/h)	308	210	743	131	29	974
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	346	236	782	138	32	1070
Peak Hour Factor	0.89	0.89	0.95	0.95	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	426	379	1756	310	382	2075
Arrive On Green	0.24	0.24	0.58	0.58	0.58	0.58
Sat Flow, veh/h	1781	1585	3101	531	607	3647
Grp Volume(v), veh/h	346	236	462	458	32	1070
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1761	607	1777
Q Serve(g_s), s	11.4	8.3	9.1	9.1	1.9	11.1
Cycle Q Clear(g_c), s	11.4	8.3	9.1	9.1	11.0	11.1
Prop In Lane	1.00	1.00		0.30	1.00	
Lane Grp Cap(c), veh/h	426	379	1037	1028	382	2075
V/C Ratio(X)	0.81	0.62	0.45	0.45	0.08	0.52
Avail Cap(c_a), veh/h	860	765	1716	1701	614	3432
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	21.1	7.3	7.3	10.4	7.7
Incr Delay (d2), s/veh	1.4	0.6	0.8	0.8	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.2	5.3	4.7	4.7	0.4	5.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.8	21.8	8.1	8.1	10.6	8.2
LnGrp LOS	C	C	A	A	B	A
Approach Vol, veh/h	582		920			1102
Approach Delay, s/veh	22.9		8.1			8.3
Approach LOS	C		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		42.3			42.3	19.9
Change Period (Y+Rc), s		6.0			6.0	5.0
Max Green Setting (Gmax), s		60.0			60.0	30.0
Max Q Clear Time (g_c+I1), s		11.1			13.1	13.4
Green Ext Time (p_c), s		17.6			23.1	1.5

Intersection Summary	
HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B

Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	0	0	5
Ped. Right-Left Flow Rate (p/h)	0	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	5355.4	32349.9	4620.9
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	12165.4	1588.9
Crosswalk Circulation Code	-	A	A
Pedestrian Delay (s/p)	42.8	40.1	42.8
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.25	3.08	2.86
Pedestrian Crosswalk LOS	B	C	C

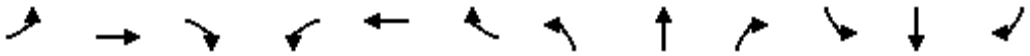
Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	7	7
Total Flow Rate (veh/h)	582	920	1102
Effct. Green for Bike (s)	18.1	38.1	38.1
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	358	754	754
Bicycle Delay (s/bike)	34.1	19.7	19.7
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	1.94	1.95	2.39
Bicycle LOS	B	B	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	37	27	303	307	613	21	696	379	409	767
v/c Ratio	0.25	0.12	0.68	0.68	0.79	0.21	0.71	0.38	0.98	0.42
Control Delay	57.7	1.2	47.0	47.2	17.3	66.5	43.6	2.5	85.0	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.7	1.2	47.0	47.2	17.3	66.5	43.6	2.5	85.0	23.2
Queue Length 50th (ft)	26	0	202	204	75	15	228	10	~299	156
Queue Length 95th (ft)	49	0	345	349	182	53	435	35	#762	398
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		100	165	
Base Capacity (vph)	284	323	795	799	994	184	1339	1251	418	1861
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.08	0.38	0.38	0.62	0.11	0.52	0.30	0.98	0.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	10	17	488	12	503	20	661	360	356	629	38
Future Volume (veh/h)	13	10	17	488	12	503	20	661	360	356	629	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	16	27	606	0	0	21	696	379	409	723	44
Peak Hour Factor	0.63	0.63	0.63	0.82	0.82	0.82	0.95	0.95	0.95	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	35	66	729	0		40	1129	815	446	1852	113
Arrive On Green	0.04	0.04	0.04	0.20	0.00	0.00	0.02	0.32	0.32	0.25	0.55	0.55
Sat Flow, veh/h	1032	786	1496	3563	0	1585	1781	3554	1545	1781	3396	207
Grp Volume(v), veh/h	37	0	27	606	0	0	21	696	379	409	378	389
Grp Sat Flow(s),veh/h/ln	1819	0	1496	1781	0	1585	1781	1777	1545	1781	1777	1826
Q Serve(g_s), s	1.8	0.0	1.6	15.1	0.0	0.0	1.1	15.4	14.4	20.8	11.4	11.4
Cycle Q Clear(g_c), s	1.8	0.0	1.6	15.1	0.0	0.0	1.1	15.4	14.4	20.8	11.4	11.4
Prop In Lane	0.57		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	81	0	66	729	0		40	1129	815	446	969	996
V/C Ratio(X)	0.46	0.00	0.41	0.83	0.00		0.52	0.62	0.46	0.92	0.39	0.39
Avail Cap(c_a), veh/h	294	0	242	1918	0		211	1531	990	479	969	996
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	0.0	43.2	35.4	0.0	0.0	44.9	26.9	14.0	33.9	12.2	12.2
Incr Delay (d2), s/veh	1.5	0.0	1.5	1.0	0.0	0.0	3.9	1.2	0.9	22.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.0	1.1	10.4	0.0	0.0	0.9	10.5	11.8	16.7	7.5	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	0.0	44.7	36.4	0.0	0.0	48.8	28.1	14.9	56.0	12.7	12.7
LnGrp LOS	D	A	D	D	A		D	C	B	E	B	B
Approach Vol, veh/h		64			606	A		1096			1176	
Approach Delay, s/veh		44.7			36.4			23.9			27.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	26.7	34.0		8.6	5.6	55.1		23.5				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	25.0	40.0		15.0	11.0	40.0		50.0				
Max Q Clear Time (g_c+I1), s	22.8	17.4		3.8	3.1	13.4		17.1				
Green Ext Time (p_c), s	0.5	12.1		0.1	0.0	9.5		1.6				

Intersection Summary	
HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

Notes

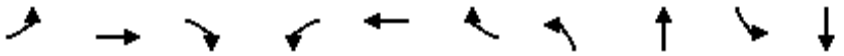
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	3	6	1
Ped. Right-Left Flow Rate (p/h)	1	6	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	1	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	58924.0	53567.3	36848.0	117930.1
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2262.6	0.0	1117.9	987.7
Crosswalk Circulation Code	A	F	A	A
Pedestrian Delay (s/p)	65.7	65.7	65.7	65.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.04	3.04	3.49	2.98
Pedestrian Crosswalk LOS	B	C	C	C

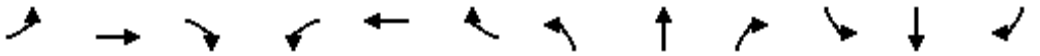
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	8	3	10
Total Flow Rate (veh/h)	64	1223	1096	1176
Effct. Green for Bike (s)	9.4	30.0	31.4	58.2
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	128	408	427	792
Bicycle Delay (s/bike)	64.4	46.7	45.5	27.0
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.71	4.59	2.16	2.21
Bicycle LOS	C	E	B	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	65	47	113	165	282	160	501	860	87	751
v/c Ratio	0.53	0.13	0.27	0.64	0.79	0.37	0.87	0.44	0.48	0.72
Control Delay	54.6	35.4	7.2	50.6	55.9	8.9	47.9	14.5	52.8	34.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	35.4	7.2	50.6	55.9	8.9	47.9	14.5	52.8	34.4
Queue Length 50th (ft)	37	25	0	97	172	0	288	167	54	227
Queue Length 95th (ft)	73	50	19	125	196	12	#538	242	109	297
Internal Link Dist (ft)		208			363			1325		863
Turn Bay Length (ft)	150		100	105		200	100		200	
Base Capacity (vph)	140	428	456	295	408	467	673	2118	384	1520
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.11	0.25	0.56	0.69	0.34	0.74	0.41	0.23	0.49

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	35	85	107	183	104	451	716	58	83	658	55
Future Volume (veh/h)	49	35	85	107	183	104	451	716	58	83	658	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	47	113	165	282	160	501	796	64	87	693	58
Peak Hour Factor	0.75	0.75	0.75	0.65	0.65	0.65	0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	420	355	331	420	355	546	1729	139	113	918	77
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.31	0.52	0.52	0.06	0.28	0.28
Sat Flow, veh/h	946	1870	1581	1224	1870	1581	1781	3322	267	1781	3302	276
Grp Volume(v), veh/h	65	47	113	165	282	160	501	426	434	87	373	378
Grp Sat Flow(s),veh/h/ln	946	1870	1581	1224	1870	1581	1781	1777	1812	1781	1777	1802
Q Serve(g_s), s	6.0	1.8	5.3	11.0	12.3	7.8	24.2	13.4	13.4	4.3	17.0	17.1
Cycle Q Clear(g_c), s	18.2	1.8	5.3	12.8	12.3	7.8	24.2	13.4	13.4	4.3	17.0	17.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.15	1.00		0.15
Lane Grp Cap(c), veh/h	163	420	355	331	420	355	546	925	943	113	494	501
V/C Ratio(X)	0.40	0.11	0.32	0.50	0.67	0.45	0.92	0.46	0.46	0.77	0.75	0.76
Avail Cap(c_a), veh/h	163	420	355	331	420	355	700	925	943	400	799	810
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.8	27.4	28.8	32.5	31.5	29.8	29.8	13.4	13.5	41.0	29.4	29.4
Incr Delay (d2), s/veh	0.6	0.0	0.2	0.4	3.4	0.3	13.9	0.5	0.5	7.2	2.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	1.4	3.5	5.7	9.5	5.1	17.3	8.5	8.6	3.7	11.6	11.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	27.5	29.0	33.0	34.9	30.1	43.7	13.9	13.9	48.2	32.3	32.3
LnGrp LOS	D	C	C	C	C	C	D	B	B	D	C	C
Approach Vol, veh/h		225			607			1361			838	
Approach Delay, s/veh		32.0			33.1			24.9			33.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	52.3		26.0	32.3	30.7		26.0				
Change Period (Y+Rc), s	5.0	6.0		* 6	5.0	6.0		6.0				
Max Green Setting (Gmax), s	20.0	45.0		* 20	35.0	40.0		20.0				
Max Q Clear Time (g_c+I1), s	6.3	15.4		20.2	26.2	19.1		14.8				
Green Ext Time (p_c), s	0.1	7.8		0.0	1.1	5.7		1.0				

Intersection Summary			
HCM 6th Ctrl Delay		29.5	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	70.0	70.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	4	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	8.0	6.0	6.0	6.0
Right Corner Size B (ft)	7.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	56.00	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	1	0	0	1
Ped. Right-Left Flow Rate (p/h)	2	3	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	10057.2	8043.1	6457.2	8085.8
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3999.8	4070.8	5177.4	10543.7
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	45.5	45.5	45.5	45.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.58	2.45	2.98	2.90
Pedestrian Crosswalk LOS	C	B	C	C

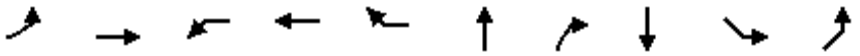
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	15	8
Total Flow Rate (veh/h)	225	607	1361	838
Effct. Green for Bike (s)	19.1	18.1	52.4	28.1
Cross Street Width (ft)	62.0	62.0	62.0	62.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	4.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	Yes	No	No
Bicycle Lane Capacity (bike/h)	341	323	936	502
Bicycle Delay (s/bike)	38.5	39.4	16.0	31.6
Bicycle Compliance	Poor	Poor	Fair	Poor
Bicycle LOS Score	2.34	3.51	2.34	1.91
Bicycle LOS	B	D	B	B

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	15	130	9	0	15	0	480	12	0	0	0
Future Vol, veh/h	0	15	130	9	0	15	0	480	12	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	0	2	2	2	2	2	2	2
Mvmt Flow	0	16	141	10	0	16	0	522	13	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	8.9	8.3	15.1
HCM LOS	A	A	C

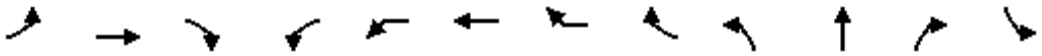
Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	38%
Vol Thru, %	98%	10%	0%
Vol Right, %	2%	90%	62%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	492	145	24
LT Vol	0	0	9
Through Vol	480	15	0
RT Vol	12	130	15
Lane Flow Rate	535	158	26
Geometry Grp	1	1	1
Degree of Util (X)	0.647	0.204	0.037
Departure Headway (Hd)	4.354	4.668	5.081
Convergence, Y/N	Yes	Yes	Yes
Cap	829	768	702
Service Time	2.385	2.707	3.132
HCM Lane V/C Ratio	0.645	0.206	0.037
HCM Control Delay	15.1	8.9	8.3
HCM Lane LOS	C	A	A
HCM 95th-tile Q	4.8	0.8	0.1



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	26	911	83	1002	267	16	64	178	20	20
v/c Ratio	0.23	0.76	0.73	0.65	0.23	0.05	0.13	0.58	0.12	0.05
Control Delay	42.6	30.3	73.9	26.1	0.5	23.4	0.5	32.9	37.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	30.3	73.9	26.1	0.5	23.4	0.5	32.9	37.9	0.3
Queue Length 50th (ft)	8	118	26	88	0	4	0	48	6	0
Queue Length 95th (ft)	42	#456	#153	#557	0	21	0	145	35	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	114	1195	114	1548	1167	681	790	593	168	495
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.76	0.73	0.65	0.23	0.02	0.08	0.30	0.12	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	23	790	3	79	0	952	0	254	8	6	54	127
Future Volume (vph)	23	790	3	79	0	952	0	254	8	6	54	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0			5.0	5.0	
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00			1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.95			1.00	0.97	
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00			1.00	1.00	
Frt	1.00	1.00			1.00	1.00	0.85			1.00	0.85	
Flt Protected	0.95	1.00			0.95	1.00	1.00			0.97	1.00	
Satd. Flow (prot)	1770	3537			1770	3539	1502			1811	1534	
Flt Permitted	0.95	1.00			0.95	1.00	1.00			0.84	1.00	
Satd. Flow (perm)	1770	3537			1770	3539	1502			1560	1534	
Peak-hour factor, PHF	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.85	0.85	0.85	0.86
Adj. Flow (vph)	26	908	3	83	0	1002	0	267	9	7	64	148
RTOR Reduction (vph)	0	0	0	0	0	0	166	0	0	0	52	0
Lane Group Flow (vph)	26	911	0	0	83	1002	101	0	0	16	12	0
Confl. Peds. (#/hr)	1		4	4			1	1	2		12	12
Confl. Bikes (#/hr)			1				14	14			1	
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	NA	Perm	Perm
Protected Phases	5	2		1	1	6				8		
Permitted Phases							6		8		8	4
Actuated Green, G (s)	1.2	26.8			4.3	28.9	28.9			14.9	14.9	
Effective Green, g (s)	1.2	26.8			4.3	28.9	28.9			14.9	14.9	
Actuated g/C Ratio	0.02	0.35			0.06	0.38	0.38			0.19	0.19	
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0			5.0	5.0	
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0			3.5	3.5	
Lane Grp Cap (vph)	27	1239			99	1336	567			303	298	
v/s Ratio Prot	0.01	0.26			c0.05	c0.28						
v/s Ratio Perm							0.07			0.01	0.01	
v/c Ratio	0.96	0.74			0.84	0.75	0.18			0.05	0.04	
Uniform Delay, d1	37.6	21.7			35.8	20.7	15.9			25.1	25.0	
Progression Factor	1.00	1.00			1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	155.6	2.8			41.6	2.9	0.3			0.1	0.1	
Delay (s)	193.2	24.5			77.4	23.5	16.2			25.1	25.1	
Level of Service	F	C			E	C	B			C	C	
Approach Delay (s)		29.2				25.4				25.1		
Approach LOS		C				C				C		

Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	76.5	Sum of lost time (s)	27.0
Intersection Capacity Utilization	77.9%	ICU Level of Service	D
Analysis Period (min)	15		

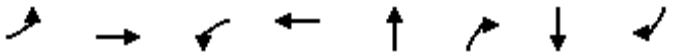
c Critical Lane Group

Movement	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations											
Traffic Volume (vph)	5	1	20	5	5	5	5	5	5	5	5
Future Volume (vph)	5	1	20	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0				5.0				5.0		
Lane Util. Factor	1.00				1.00				1.00		
Frpb, ped/bikes	1.00				1.00				1.00		
Flpb, ped/bikes	0.99				1.00				1.00		
Frt	0.98				0.93				0.93		
Flt Protected	0.96				0.98				0.98		
Satd. Flow (prot)	1738				1695				1695		
Flt Permitted	0.75				1.00				0.98		
Satd. Flow (perm)	1359				1737				1695		
Peak-hour factor, PHF	0.86	0.86	0.86	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	6	1	23	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	178	0	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)		2	2								
Confl. Bikes (#/hr)											
Turn Type	NA			Perm	Prot			Perm	Prot		
Protected Phases	4				7				3		
Permitted Phases				7				3			
Actuated Green, G (s)	14.9				1.8				2.7		
Effective Green, g (s)	14.9				1.8				2.7		
Actuated g/C Ratio	0.19				0.02				0.04		
Clearance Time (s)	5.0				5.0				5.0		
Vehicle Extension (s)	3.5				2.0				1.5		
Lane Grp Cap (vph)	264				40				59		
v/s Ratio Prot											
v/s Ratio Perm	c0.13				c0.01				0.00		
v/c Ratio	0.67				0.50				0.01		
Uniform Delay, d1	28.6				36.9				35.6		
Progression Factor	1.00				1.00				1.00		
Incremental Delay, d2	6.9				3.5				0.0		
Delay (s)	35.5				40.4				35.6		
Level of Service	D				D				D		
Approach Delay (s)	35.5				40.4				35.6		
Approach LOS	D				D				D		

Intersection Summary

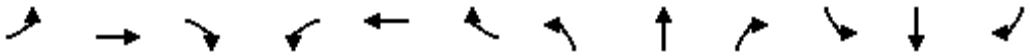
Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29676.8	11558.2	0.0	72900.0	24284.5
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	3270.2	5573.8	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	37.1	37.1	37.1	37.1	37.1	37.1
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.89	3.29	2.00	1.95	1.73	1.73
Pedestrian Crosswalk LOS	C	C	B	B	B	B

Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	937	1352	80	178	20	20
Effct. Green for Bike (s)	22.4	29.0	14.9	14.9	6.4	7.3
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	472	611	314	314	135	154
Bicycle Delay (s/bike)	27.8	23.1	34.0	33.8	41.3	40.5
Bicycle Compliance	Fair	Fair	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.83	1.77	2.79	2.22	2.62	2.20
Bicycle LOS	C	B	C	B	C	B



Lane Group	EBL	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	29	1083	121	1399	145	91	51	29
v/c Ratio	0.24	0.60	0.59	0.44	0.67	0.27	0.28	0.09
Control Delay	53.8	18.2	56.6	11.3	55.4	10.5	42.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	18.2	56.6	11.3	55.4	10.5	42.1	0.5
Queue Length 50th (ft)	18	226	75	169	89	0	29	0
Queue Length 95th (ft)	52	366	146	253	164	42	57	0
Internal Link Dist (ft)		217		575	342		108	
Turn Bay Length (ft)	120		280			150		50
Base Capacity (vph)	293	2309	293	3470	430	579	366	571
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.47	0.41	0.40	0.34	0.16	0.14	0.05

Intersection Summary



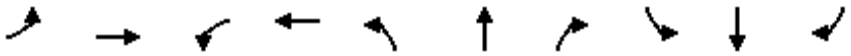
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	877	98	105	1182	35	122	5	80	36	2	22
Future Volume (veh/h)	26	877	98	105	1182	35	122	5	80	36	2	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	974	109	121	1359	40	139	6	91	48	3	29
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.88	0.88	0.88	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	1484	166	150	2672	79	67	2	443	66	2	443
Arrive On Green	0.02	0.46	0.46	0.08	0.52	0.52	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1781	3210	359	1781	5091	150	0	5	1563	0	8	1563
Grp Volume(v), veh/h	29	539	544	121	909	490	145	0	91	51	0	29
Grp Sat Flow(s),veh/h/ln	1781	1777	1792	1781	1702	1837	5	0	1563	8	0	1563
Q Serve(g_s), s	1.7	24.8	24.8	7.1	18.3	18.3	0.0	0.0	4.7	0.0	0.0	1.4
Cycle Q Clear(g_c), s	1.7	24.8	24.8	7.1	18.3	18.3	30.0	0.0	4.7	30.0	0.0	1.4
Prop In Lane	1.00		0.20	1.00		0.08	0.96		1.00	0.94		1.00
Lane Grp Cap(c), veh/h	39	821	828	150	1786	964	68	0	443	68	0	443
V/C Ratio(X)	0.75	0.66	0.66	0.81	0.51	0.51	2.13	0.00	0.21	0.75	0.00	0.07
Avail Cap(c_a), veh/h	252	1007	1016	252	1930	1042	68	0	443	68	0	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.5	22.0	22.0	47.6	16.3	16.3	52.2	0.0	28.8	51.6	0.0	27.7
Incr Delay (d2), s/veh	14.4	4.1	4.1	5.5	1.0	1.9	553.1	0.0	0.2	33.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	15.7	15.8	5.9	11.1	12.1	22.1	0.0	3.2	3.6	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.9	26.0	26.0	53.1	17.3	18.2	605.3	0.0	29.0	85.4	0.0	27.7
LnGrp LOS	E	C	C	D	B	B	F	A	C	F	A	C
Approach Vol, veh/h		1112			1520			236			80	
Approach Delay, s/veh		27.1			20.5			383.1			64.5	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.9	54.9		36.0	8.3	61.5		36.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	60.0		30.0	15.0	60.0		30.0				
Max Q Clear Time (g_c+I1), s	9.1	26.8		32.0	3.7	20.3		32.0				
Green Ext Time (p_c), s	0.1	22.1		0.0	0.0	30.9		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			53.2									
HCM 6th LOS			D									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	95.0	110.0	75.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	7	3	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	7.0	10.0	9.0	10.0
Right Corner Size B (ft)	7.0	10.0	9.0	8.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	49.00	100.00	81.00	80.00
Ped. Left-Right Flow Rate (p/h)	1	0	1	1
Ped. Right-Left Flow Rate (p/h)	0	0	1	2
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	25	25
Right Corner Area per Ped (sq.ft)	14678.8	29978.8	36418.1	17952.2
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	11745.2	0.0	5315.8	3460.5
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	51.0	51.0	51.0	51.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.14	3.12	2.13	2.00
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	10	15	4	3
Total Flow Rate (veh/h)	1112	1520	236	80
Effct. Green for Bike (s)	49.2	59.5	16.0	16.0
Cross Street Width (ft)	70.0	55.0	87.0	82.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	800	967	260	260
Bicycle Delay (s/bike)	22.3	16.5	46.6	46.6
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.05	1.95	3.28	2.95
Bicycle LOS	B	B	C	C

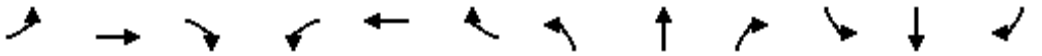


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	34	1312	191	986	408	408	255	23	24	21
v/c Ratio	0.31	0.74	0.97	0.43	0.82	0.82	0.32	0.16	0.17	0.08
Control Delay	52.9	32.9	81.5	8.8	46.9	46.3	2.3	42.9	43.2	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.9	32.9	81.5	8.8	46.9	46.3	2.3	42.9	43.2	0.6
Queue Length 50th (ft)	21	290	125	160	232	232	0	14	15	0
Queue Length 95th (ft)	53	#390	m#211	79	#426	#424	22	29	30	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	110	1767	196	2304	501	504	806	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.74	0.97	0.43	0.81	0.81	0.32	0.09	0.09	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	1110	150	183	925	21	675	27	219	19	15	15
Future Volume (veh/h)	33	1110	150	183	925	21	675	27	219	19	15	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	34	1156	156	191	964	22	807	0	255	24	24	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.86	0.86	0.86	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	44	1267	171	422	2608	59	894	0	772	70	69	61
Arrive On Green	0.02	0.28	0.28	0.51	1.00	1.00	0.27	0.00	0.27	0.04	0.04	0.04
Sat Flow, veh/h	1781	4527	611	1668	5132	117	3337	0	1480	1781	1752	1549
Grp Volume(v), veh/h	34	869	443	191	639	347	807	0	255	24	24	21
Grp Sat Flow(s),veh/h/ln	1781	1702	1733	1668	1702	1845	1668	0	1480	1781	1752	1549
Q Serve(g_s), s	1.9	24.7	24.7	7.3	0.0	0.0	23.4	0.0	0.0	1.3	1.3	1.3
Cycle Q Clear(g_c), s	1.9	24.7	24.7	7.3	0.0	0.0	23.4	0.0	0.0	1.3	1.3	1.3
Prop In Lane	1.00		0.35	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	44	953	485	422	1730	938	894	0	772	70	69	61
V/C Ratio(X)	0.78	0.91	0.91	0.45	0.37	0.37	0.90	0.00	0.33	0.34	0.35	0.34
Avail Cap(c_a), veh/h	107	953	485	422	1730	938	934	0	789	285	280	248
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.60	0.60	0.60	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	34.8	34.8	20.3	0.0	0.0	35.3	0.0	13.9	46.8	46.8	46.8
Incr Delay (d2), s/veh	21.2	12.1	20.6	0.5	0.4	0.7	11.6	0.0	0.2	2.9	3.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	16.5	18.1	4.4	0.2	0.3	16.1	0.0	5.9	1.1	1.1	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.7	46.9	55.4	20.8	0.4	0.7	46.9	0.0	14.1	49.6	49.8	50.1
LnGrp LOS	E	D	E	C	A	A	D	A	B	D	D	D
Approach Vol, veh/h		1346			1177			1062			69	
Approach Delay, s/veh		50.3			3.8			39.1			49.8	
Approach LOS		D			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	29.3	32.0		7.9	6.4	54.8		30.8				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	12.0	28.0		16.0	6.0	34.0		28.0				
Max Q Clear Time (g_c+I1), s	9.3	26.7		3.3	3.9	2.0		25.4				
Green Ext Time (p_c), s	0.2	1.0		0.2	0.0	7.7		1.4				

Intersection Summary			
HCM 6th Ctrl Delay		32.0	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

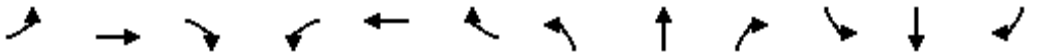
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	88.4	95.5	49.4	54.8
Crosswalk Width (ft)	10.0	10.0	10.0	10.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	11.0	11.0	10.0	15.0
Right Corner Size B (ft)	10.0	11.0	11.0	14.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	110.00	121.00	110.00	210.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	0
Ped. Right-Left Flow Rate (p/h)	1	0	3	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	3
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	12355.6	0.0	19768.9	31482.7
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	3316.1	0.0	1593.1	0.0
Crosswalk Circulation Code	A	-	A	-
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.11	3.03	2.84	2.19
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	8	9	1	5
Total Flow Rate (veh/h)	1346	1177	1071	68
Effct. Green for Bike (s)	35.6	45.4	31.9	8.4
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	712	908	638	168
Bicycle Delay (s/bike)	20.8	15.0	23.2	42.1
Bicycle Compliance	Fair	Fair	Fair	Poor
Bicycle LOS Score	2.01	1.92	3.66	2.99
Bicycle LOS	B	B	D	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	597	849	1241	225	142
v/c Ratio	0.99	0.34	0.75	0.66	0.33
Control Delay	50.3	1.8	26.0	44.8	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	1.8	26.0	44.8	5.6
Queue Length 50th (ft)	144	20	307	136	0
Queue Length 95th (ft)	#291	40	#578	176	34
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	604	2523	1653	557	595
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.99	0.34	0.75	0.40	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	555	790	0	0	949	192	214	0	135	0	0	0
Future Volume (veh/h)	555	790	0	0	949	192	214	0	135	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	597	849	0	0	1032	209	225	0	142			
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.95	0.95	0.95			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1166	2667	0	0	1027	207	283	0	248			
Arrive On Green	0.72	1.00	0.00	0.00	0.35	0.35	0.17	0.00	0.17			
Sat Flow, veh/h	3237	3647	0	0	3028	592	1668	0	1462			
Grp Volume(v), veh/h	597	849	0	0	624	617	225	0	142			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1750	1668	0	1462			
Q Serve(g_s), s	8.2	0.0	0.0	0.0	35.0	35.0	12.9	0.0	8.9			
Cycle Q Clear(g_c), s	8.2	0.0	0.0	0.0	35.0	35.0	12.9	0.0	8.9			
Prop In Lane	1.00		0.00	0.00		0.34	1.00		1.00			
Lane Grp Cap(c), veh/h	1166	2667	0	0	622	612	283	0	248			
V/C Ratio(X)	0.51	0.32	0.00	0.00	1.00	1.01	0.80	0.00	0.57			
Avail Cap(c_a), veh/h	1166	2667	0	0	622	612	567	0	497			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.69	0.69	0.00	0.00	0.75	0.75	1.00	0.00	1.00			
Uniform Delay (d), s/veh	10.1	0.0	0.0	0.0	32.5	32.5	39.9	0.0	38.2			
Incr Delay (d2), s/veh	0.3	0.2	0.0	0.0	32.0	33.5	5.1	0.0	2.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	3.8	0.1	0.0	0.0	26.2	26.2	9.5	0.0	6.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.3	0.2	0.0	0.0	64.5	66.0	44.9	0.0	40.3			
LnGrp LOS	B	A	A	A	F	F	D	A	D			
Approach Vol, veh/h		1446			1241			367				
Approach Delay, s/veh		4.4			65.2			43.1				
Approach LOS		A			E			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		79.0			40.0	39.0		21.0				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			19.0	35.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			10.2	37.0		14.9				
Green Ext Time (p_c), s		7.4			2.0	0.0		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			33.8									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	73.5	41.5	30.4
Crosswalk Width (ft)	10.0	11.0	10.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	8.0	9.0	19.0	0.1
Right Corner Size B (ft)	9.0	10.0	19.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	72.00	90.00	361.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	2	0
Ped. Right-Left Flow Rate (p/h)	0	1	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21565.5	40474.1	81212.1	-53.5
Right Corner Quality of Service	A	A	A	F
Ped. Circulation Area (sq.ft)	0.0	7459.0	2974.4	0.3
Crosswalk Circulation Code	-	A	A	F
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.98	2.80	2.02	2.12
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	11	1	1
Total Flow Rate (veh/h)	1446	1241	367	0
Effct. Green for Bike (s)	71.3	48.3	20.7	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1426	966	414	0
Bicycle Delay (s/bike)	4.1	13.4	31.5	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.31	2.06	2.33	0.00
Bicycle LOS	B	B	B	

Intersection	
Intersection Delay, s/veh	3.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	33	176	135	17
Demand Flow Rate, veh/h	33	180	138	17
Vehicles Circulating, veh/h	156	15	35	177
Vehicles Exiting, veh/h	38	157	154	18
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.3	3.8	3.6	3.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	33	180	138	17
Cap Entry Lane, veh/h	1177	1359	1331	1152
Entry HV Adj Factor	0.986	0.980	0.978	0.994
Flow Entry, veh/h	33	176	135	17
Cap Entry, veh/h	1161	1332	1302	1145
V/C Ratio	0.028	0.132	0.104	0.015
Control Delay, s/veh	3.3	3.8	3.6	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Lane Group	EBT	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	4	253	128	340	619	430	672
v/c Ratio	0.01	0.61	0.08	0.61	0.69	1.16	0.62
Control Delay	0.0	34.3	0.1	28.4	6.7	129.9	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	34.3	0.1	28.4	6.7	129.9	15.0
Queue Length 50th (ft)	0	98	0	124	0	~224	167
Queue Length 95th (ft)	0	206	0	236	31	#587	418
Internal Link Dist (ft)	160	615		469			438
Turn Bay Length (ft)			180		370	490	
Base Capacity (vph)	743	843	1583	1405	1312	371	1634
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.30	0.08	0.24	0.47	1.16	0.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	206	2	105	0	272	495	370	577	1
Future Volume (veh/h)	0	0	1	206	2	105	0	272	495	370	577	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	4	251	2	0	0	340	0	430	671	1
Peak Hour Factor	0.25	0.25	0.25	0.82	0.82	0.82	0.80	0.80	0.80	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	7	327	3		3	434		418	1017	2
Arrive On Green	0.00	0.00	0.00	0.19	0.19	0.00	0.00	0.23	0.00	0.23	0.54	0.54
Sat Flow, veh/h	0	0	1585	1768	14	1585	1781	1870	1585	1781	1867	3
Grp Volume(v), veh/h	0	0	4	253	0	0	0	340	0	430	0	672
Grp Sat Flow(s),veh/h/ln	0	0	1585	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.2	8.6	0.0	0.0	0.0	10.9	0.0	15.0	0.0	16.3
Cycle Q Clear(g_c), s	0.0	0.0	0.2	8.6	0.0	0.0	0.0	10.9	0.0	15.0	0.0	16.3
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	7	330	0		3	434		418	0	1019
V/C Ratio(X)	0.00	0.00	0.59	0.77	0.00		0.00	0.78		1.03	0.00	0.66
Avail Cap(c_a), veh/h	0	0	669	947	0		111	1579		418	0	1578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	31.8	24.8	0.0	0.0	0.0	23.0	0.0	24.5	0.0	10.3
Incr Delay (d2), s/veh	0.0	0.0	61.4	3.7	0.0	0.0	0.0	3.1	0.0	51.9	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.3	6.4	0.0	0.0	0.0	8.0	0.0	17.2	0.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	93.2	28.5	0.0	0.0	0.0	26.2	0.0	76.4	0.0	11.1
LnGrp LOS	A	A	F	C	A		A	C		F	A	B
Approach Vol, veh/h		4			253	A		340	A		1102	
Approach Delay, s/veh		93.2			28.5			26.2			36.6	
Approach LOS		F			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	20.9		5.3	0.0	40.9		17.8				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	54.0		27.0	4.0	54.0		34.0				
Max Q Clear Time (g_c+I1), s	17.0	12.9		2.2	0.0	18.3		10.6				
Green Ext Time (p_c), s	0.0	1.9		0.0	0.0	4.6		1.4				

Intersection Summary			
HCM 6th Ctrl Delay		33.4	
HCM 6th LOS		C	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	76.0	67.3	67.3	76.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.50	2.76	2.82
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	14	8
Total Flow Rate (veh/h)	4	381	959	1102
Effct. Green for Bike (s)	5.7	17.5	22.4	43.3
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	75	230	295	570
Bicycle Delay (s/bike)	70.4	59.6	55.6	39.0
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.71	3.34	2.93	2.73
Bicycle LOS	C	C	C	C

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	157	54	566	967	7
Future Vol, veh/h	20	157	54	566	967	7
Conflicting Peds, #/hr	1	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	80	80	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	176	68	708	1099	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1596	556	1109	0	-	0
Stage 1	1105	-	-	-	-	-
Stage 2	491	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	97	475	625	-	-	-
Stage 1	279	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	86	474	624	-	-	-
Mov Cap-2 Maneuver	86	-	-	-	-	-
Stage 1	248	-	-	-	-	-
Stage 2	580	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	624	-	86	474	-	-
HCM Lane V/C Ratio	0.108	-	0.261	0.372	-	-
HCM Control Delay (s)	11.5	-	61.1	17	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	1.7	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	142108.0	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	1533	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.94	
Delay for adq Gap	142110.33	
Avg Ped Delay (s)	142107.98	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	265.2	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	967	566
Ped Vol Crossed	1	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.99	0.84
Prob of Blocked Lane	0.88	0.60
Delay for adq Gap	247.37	25.42
Avg Ped Delay (s)	243.88	21.30

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	571	196	715	444	91	1127
v/c Ratio	0.53	0.33	0.49	0.52	0.25	0.60
Control Delay	24.8	5.4	20.5	4.4	11.4	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	5.4	20.5	4.4	11.4	14.4
Queue Length 50th (ft)	129	0	154	0	23	205
Queue Length 95th (ft)	86	0	156	9	45	264
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1353	686	1724	930	466	2432
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.29	0.41	0.48	0.20	0.46

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	274	94	508	315	84	1037
Future Volume (veh/h)	274	94	508	315	84	1037
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.94	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	571	196	715	444	91	1127
Peak Hour Factor	0.48	0.48	0.71	0.71	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	818	375	1594	665	351	2104
Arrive On Green	0.24	0.24	0.45	0.45	0.05	0.59
Sat Flow, veh/h	3456	1585	3647	1483	1781	3647
Grp Volume(v), veh/h	571	196	715	444	91	1127
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1483	1781	1777
Q Serve(g_s), s	9.7	6.9	8.9	15.1	1.6	12.2
Cycle Q Clear(g_c), s	9.7	6.9	8.9	15.1	1.6	12.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	818	375	1594	665	351	2104
V/C Ratio(X)	0.70	0.52	0.45	0.67	0.26	0.54
Avail Cap(c_a), veh/h	1452	666	1936	808	594	2710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	21.4	12.2	13.9	8.6	7.8
Incr Delay (d2), s/veh	1.1	1.1	0.4	2.9	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.0	10.4	5.8	8.6	0.9	5.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.5	22.5	12.7	16.8	8.8	8.2
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	767		1159			1218
Approach Delay, s/veh	23.2		14.3			8.3
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		44.0		20.2	9.2	34.8
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		49.0		27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		14.2		11.7	3.6	17.1
Green Ext Time (p_c), s		16.9		3.5	0.1	11.7

Intersection Summary	
HCM 6th Ctrl Delay	14.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	65.0	80.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None	Actuated
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	8.0	0.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	7.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	26	0	4
Ped. Right-Left Flow Rate (p/h)	3	0	81
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	5170.9	20296.0	6893.9
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	434.9	0.0	151.4
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	37.9	45.5	37.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.40	2.87	2.93
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	17	6
Total Flow Rate (veh/h)	767	1159	1218
Effct. Green for Bike (s)	24.7	31.9	41.5
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	543	701	912
Bicycle Delay (s/bike)	24.2	19.4	13.5
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	3.26	1.99	1.54
Bicycle LOS	C	B	B

Intersection	
Int Delay, s/veh	6.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	51	774	85	95	1237
Future Vol, veh/h	27	51	774	85	95	1237
Conflicting Peds, #/hr	0	0	0	22	22	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	71	71	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	74	1090	120	113	1473

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2135	627	0	0	1232	0
Stage 1	1172	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	58	365	-	-	302	-
Stage 1	194	-	-	-	-	-
Stage 2	323	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 35	357	-	-	296	-
Mov Cap-2 Maneuver	~ 35	-	-	-	-	-
Stage 1	190	-	-	-	-	-
Stage 2	200	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	137.4	0	1.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	35	357	296	-
HCM Lane V/C Ratio	-	-	1.118	0.207	0.382	-
HCM Control Delay (s)	-	-	$ 363.4	17.7	24.5	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	4.1	0.8	1.7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	1254.3	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	774	1237
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	0.98	1.00
Prob of Blocked Lane	0.71	0.95
Delay for adq Gap	173.53	1087.90
Avg Ped Delay (s)	169.31	1085.03

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	16558617.0
Level of Service	F

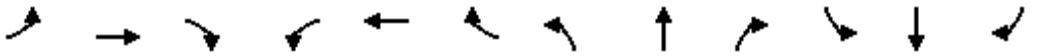
Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2011
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	16558619.00
Avg Ped Delay (s)	16558617.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	60	131	157	10	61	1072	17	1482	24
v/c Ratio	0.16	0.24	0.42	0.02	0.21	0.39	0.05	1.07	0.04
Control Delay	20.3	2.9	25.1	0.0	10.9	12.6	10.4	73.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	2.9	25.1	0.0	10.9	12.6	10.4	73.1	0.1
Queue Length 50th (ft)	21	0	59	0	15	120	4	~508	0
Queue Length 95th (ft)	45	15	69	0	29	167	12	#578	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	466	634	457	622	538	2844	429	1382	684
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.21	0.34	0.02	0.11	0.38	0.04	1.07	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	14	109	78	16	6	48	821	26	14	1230	20
Future Volume (veh/h)	36	14	109	78	16	6	48	821	26	14	1230	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.94	0.98		0.95	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	17	131	130	27	10	61	1039	33	17	1482	24
Peak Hour Factor	0.83	0.83	0.83	0.60	0.60	0.60	0.79	0.79	0.79	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	21	431	95	11	438	210	2367	75	298	1494	638
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.06	0.47	0.47	0.01	0.42	0.42
Sat Flow, veh/h	0	74	1488	0	39	1511	1781	5077	161	1781	3554	1518
Grp Volume(v), veh/h	60	0	131	157	0	10	61	696	376	17	1482	24
Grp Sat Flow(s),veh/h/ln	74	0	1488	39	0	1511	1781	1702	1834	1781	1777	1518
Q Serve(g_s), s	0.0	0.0	4.7	0.0	0.0	0.3	1.3	9.5	9.5	0.4	28.6	0.6
Cycle Q Clear(g_c), s	20.0	0.0	4.7	20.0	0.0	0.3	1.3	9.5	9.5	0.4	28.6	0.6
Prop In Lane	0.72		1.00	0.83		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	431	107	0	438	210	1587	855	298	1494	638
V/C Ratio(X)	0.54	0.00	0.30	1.47	0.00	0.02	0.29	0.44	0.44	0.06	0.99	0.04
Avail Cap(c_a), veh/h	111	0	431	107	0	438	623	1587	855	535	1494	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	19.1	32.4	0.0	17.5	15.8	12.4	12.4	11.5	19.9	11.8
Incr Delay (d2), s/veh	6.6	0.0	0.5	256.2	0.0	0.0	1.6	0.3	0.6	0.1	21.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	0.0	2.9	16.8	0.0	0.2	0.9	5.4	5.9	0.2	20.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	19.6	288.6	0.0	17.5	17.4	12.7	13.0	11.6	41.3	11.8
LnGrp LOS	C	A	B	F	A	B	B	B	B	B	D	B
Approach Vol, veh/h		191			167			1133			1523	
Approach Delay, s/veh		24.2			272.4			13.1			40.5	
Approach LOS		C			F			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	35.0		25.0	5.8	38.2		25.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	29.0		20.0	10.0	29.0		20.0				
Max Q Clear Time (g_c+I1), s	3.3	30.6		22.0	2.4	11.5		22.0				
Green Ext Time (p_c), s	0.3	0.0		0.0	0.0	9.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		42.0	
HCM 6th LOS		D	

Notes

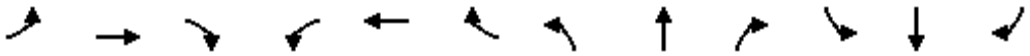
User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	4	12	0	8
Ped. Right-Left Flow Rate (p/h)	4	2	0	37
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73706.7	9989.4	42095.1	11094.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2301.5	1312.9	0.0	278.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	2.00	3.16	3.14
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	191	167	1133	1523
Effct. Green for Bike (s)	21.0	21.0	41.7	29.6
Cross Street Width (ft)	84.5	96.0	36.1	37.9
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	494	494	981	696
Bicycle Delay (s/bike)	24.1	24.1	11.0	18.1
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.17	3.30	2.74	2.32
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	135	238	161	217	204	56	517	200	790	863
v/c Ratio	0.45	0.77	0.26	0.65	0.47	0.37	0.60	0.32	0.74	0.59
Control Delay	47.8	59.9	41.4	42.5	9.7	58.9	47.5	9.2	39.8	29.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	59.9	41.4	42.5	9.7	58.9	47.5	9.2	39.8	29.1
Queue Length 50th (ft)	93	168	53	120	0	40	135	25	270	278
Queue Length 95th (ft)	130	213	81	194	51	85	178	74	363	356
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	410	423	732	379	470	171	895	655	1209	1558
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.56	0.22	0.57	0.43	0.33	0.58	0.31	0.65	0.55

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	147	36	134	72	277	49	450	174	711	723	54
Future Volume (veh/h)	104	147	36	134	72	277	49	450	174	711	723	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	191	47	161	272	210	56	517	200	790	803	60
Peak Hour Factor	0.77	0.77	0.77	0.83	0.83	0.83	0.87	0.87	0.87	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	302	243	60	678	356	292	182	861	557	1031	1217	91
Arrive On Green	0.17	0.17	0.17	0.19	0.19	0.19	0.10	0.17	0.17	0.30	0.36	0.36
Sat Flow, veh/h	1781	1435	353	3563	1870	1535	1781	5106	1516	3456	3337	249
Grp Volume(v), veh/h	135	0	238	161	272	210	56	517	200	790	427	436
Grp Sat Flow(s),veh/h/ln	1781	0	1789	1781	1870	1535	1781	1702	1516	1728	1777	1810
Q Serve(g_s), s	7.1	0.0	13.3	4.0	14.3	13.4	3.0	9.7	10.1	21.6	20.9	21.0
Cycle Q Clear(g_c), s	7.1	0.0	13.3	4.0	14.3	13.4	3.0	9.7	10.1	21.6	20.9	21.0
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	302	0	303	678	356	292	182	861	557	1031	648	660
V/C Ratio(X)	0.45	0.00	0.78	0.24	0.76	0.72	0.31	0.60	0.36	0.77	0.66	0.66
Avail Cap(c_a), veh/h	428	0	430	787	413	339	182	932	579	1262	820	835
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	0.0	41.4	35.7	39.9	39.5	43.3	40.0	24.6	33.2	27.7	27.7
Incr Delay (d2), s/veh	0.8	0.0	5.1	0.6	12.5	12.0	0.4	3.1	1.8	4.6	5.2	5.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.7	0.0	10.3	3.1	12.0	9.7	2.4	7.5	8.7	14.2	14.3	14.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.6	0.0	46.5	36.4	52.4	51.5	43.6	43.1	26.4	37.8	32.9	32.8
LnGrp LOS	D	A	D	D	D	D	D	D	C	D	C	C
Approach Vol, veh/h		373			643			773			1653	
Approach Delay, s/veh		44.0			48.1			38.8			35.2	
Approach LOS		D			D			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.6	14.7	42.0		24.8	35.1	21.6				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		25.0	9.0	48.0		23.0	38.0	19.0				
Max Q Clear Time (g_c+I1), s		15.3	5.0	23.0		16.3	23.6	12.1				
Green Ext Time (p_c), s		1.2	0.0	15.0		3.5	7.4	4.5				

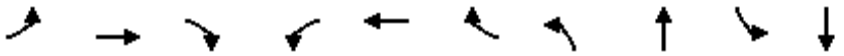
Intersection Summary	
HCM 6th Ctrl Delay	39.4
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	2
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	7	3	5
Ped. Right-Left Flow Rate (p/h)	3	9	2	7
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53583.8	21032.3	2458.1	32730.7
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1647.1	593.9	1233.7	586.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	51.0	51.0	53.8	53.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.15	3.06	2.99	3.42
Pedestrian Crosswalk LOS	B	C	C	C

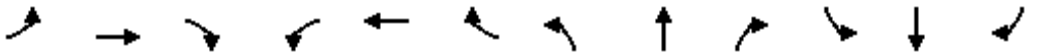
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	5	12	6
Total Flow Rate (veh/h)	373	582	773	1653
Effct. Green for Bike (s)	18.6	20.2	18.7	45.7
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	302	328	304	743
Bicycle Delay (s/bike)	44.4	43.1	44.5	24.4
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.44	3.71	1.69	2.97
Bicycle LOS	C	D	B	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	110	115	84	206	131	111	239	751	96	804
v/c Ratio	0.32	0.42	0.21	0.46	0.33	0.24	0.50	0.37	0.55	0.51
Control Delay	42.4	39.2	1.1	39.8	33.4	2.5	39.6	17.8	56.8	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	39.2	1.1	39.8	33.4	2.5	39.6	17.8	56.8	24.3
Queue Length 50th (ft)	25	52	0	47	58	0	55	86	23	106
Queue Length 95th (ft)	64	113	0	77	87	0	121	157	#90	218
Internal Link Dist (ft)		461			455			697		1255
Turn Bay Length (ft)	240		240	300		200	300		200	
Base Capacity (vph)	436	294	422	1482	804	761	741	3252	174	2399
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.39	0.20	0.14	0.16	0.15	0.32	0.23	0.55	0.34

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	93	68	128	81	69	201	577	54	91	634	130
Future Volume (veh/h)	89	93	68	128	81	69	201	577	54	91	634	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	115	84	206	131	111	239	687	64	96	667	137
Peak Hour Factor	0.81	0.81	0.81	0.62	0.62	0.62	0.84	0.84	0.84	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	268	222	351	339	283	365	1853	171	172	1419	287
Arrive On Green	0.06	0.14	0.14	0.10	0.18	0.18	0.11	0.39	0.39	0.05	0.33	0.33
Sat Flow, veh/h	3456	1870	1552	3456	1870	1559	3456	4747	439	3456	4239	857
Grp Volume(v), veh/h	110	115	84	206	131	111	239	491	260	96	534	270
Grp Sat Flow(s),veh/h/ln	1728	1870	1552	1728	1870	1559	1728	1702	1781	1728	1702	1692
Q Serve(g_s), s	2.1	3.7	3.3	3.8	4.1	4.2	4.4	6.8	6.9	1.8	8.2	8.4
Cycle Q Clear(g_c), s	2.1	3.7	3.3	3.8	4.1	4.2	4.4	6.8	6.9	1.8	8.2	8.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.51
Lane Grp Cap(c), veh/h	219	268	222	351	339	283	365	1329	695	172	1139	566
V/C Ratio(X)	0.50	0.43	0.38	0.59	0.39	0.39	0.66	0.37	0.37	0.56	0.47	0.48
Avail Cap(c_a), veh/h	519	281	233	1763	954	795	882	2605	1363	207	1941	965
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	26.1	25.9	28.6	24.0	24.0	28.6	14.5	14.5	30.9	17.5	17.6
Incr Delay (d2), s/veh	1.8	1.1	1.1	1.6	0.7	0.9	2.0	0.5	1.0	2.8	0.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	3.1	2.2	2.9	3.3	2.8	3.2	4.2	4.6	1.4	5.2	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	27.2	26.9	30.2	24.7	24.9	30.6	15.0	15.5	33.7	18.4	19.4
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		309			448			990			900	
Approach Delay, s/veh		28.8			27.3			18.9			20.3	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	28.3	11.8	14.5	8.3	32.0	9.2	17.1
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	17.0	38.0	34.0	10.0	4.0	51.0	10.0	34.0
Max Q Clear Time (g_c+I1), s	6.4	10.4	5.8	5.7	3.8	8.9	4.1	6.2
Green Ext Time (p_c), s	0.7	11.6	1.0	0.4	0.0	12.6	0.2	1.3

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	100.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	6	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	30.0	30.0	30.0	30.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	6	3	1	6
Ped. Right-Left Flow Rate (p/h)	1	1	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73709.5	42097.6	117924.5	34657.2
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1035.5	2540.5	0.1	980.9
Crosswalk Circulation Code	A	A	F	A
Pedestrian Delay (s/p)	51.3	51.3	60.0	51.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.67	2.60	3.10	3.09
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	1	0	4
Total Flow Rate (veh/h)	309	448	990	900
Effct. Green for Bike (s)	12.2	17.9	33.3	26.0
Cross Street Width (ft)	100.0	99.0	68.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	203	298	555	433
Bicycle Delay (s/bike)	48.4	43.5	31.3	36.9
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.60	2.53	1.86	1.69
Bicycle LOS	D	C	B	B

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	44	43	1234	43	849
v/c Ratio	0.18	0.17	0.54	0.20	0.32
Control Delay	26.1	11.1	9.3	28.5	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	11.1	9.3	28.5	3.5
Queue Length 50th (ft)	13	0	149	13	45
Queue Length 95th (ft)	34	16	190	45	74
Internal Link Dist (ft)	233		1200		376
Turn Bay Length (ft)		175		100	
Base Capacity (vph)	1213	1098	2591	215	3225
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.04	0.04	0.48	0.20	0.26

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	31	30	911	101	40	798
Future Volume (veh/h)	31	30	911	101	40	798
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	43	1111	123	43	849
Peak Hour Factor	0.70	0.70	0.82	0.82	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	158	140	1706	189	99	2439
Arrive On Green	0.09	0.09	0.53	0.53	0.06	0.69
Sat Flow, veh/h	1781	1585	3308	355	1781	3647
Grp Volume(v), veh/h	44	43	613	621	43	849
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1793	1781	1777
Q Serve(g_s), s	1.0	1.1	11.1	11.2	1.0	4.4
Cycle Q Clear(g_c), s	1.0	1.1	11.1	11.2	1.0	4.4
Prop In Lane	1.00	1.00		0.20	1.00	
Lane Grp Cap(c), veh/h	158	140	943	951	99	2439
V/C Ratio(X)	0.28	0.31	0.65	0.65	0.44	0.35
Avail Cap(c_a), veh/h	1390	1237	1556	1570	242	3952
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	19.2	7.5	7.6	20.5	2.9
Incr Delay (d2), s/veh	1.0	1.2	0.8	0.8	3.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	0.8	4.2	4.2	0.8	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.1	20.4	8.3	8.3	23.5	3.0
LnGrp LOS	C	C	A	A	C	A
Approach Vol, veh/h	87		1234			892
Approach Delay, s/veh	20.2		8.3			4.0
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.0	29.2			36.2	8.7
Change Period (Y+Rc), s	4.5	5.4			5.4	4.7
Max Green Setting (Gmax), s	6.1	39.3			49.9	35.0
Max Q Clear Time (g_c+I1), s	3.0	13.2			6.4	3.1
Green Ext Time (p_c), s	0.0	9.0			6.6	0.2

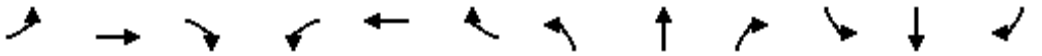
Intersection Summary	
HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

Approach	WB	NB	SB
Crosswalk Length (ft)	35.9	59.9	60.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	47.5	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	2.92	2.91
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	87	1234	892
Effct. Green for Bike (s)	7.4	34.8	40.4
Cross Street Width (ft)	60.1	35.9	59.9
Through Lanes Number	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	156	733	851
Bicycle Delay (s/bike)	40.4	19.1	15.7
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	2.62	3.13	3.21
Bicycle LOS	C	C	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	9	91	68	76	53	1116	78	43	704	35
v/c Ratio	0.23	0.04	0.32	0.38	0.29	0.09	0.44	0.07	0.11	0.28	0.03
Control Delay	36.0	29.7	9.2	40.6	11.8	3.2	8.0	1.5	5.9	9.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	36.0	29.7	9.2	40.6	11.8	3.2	8.2	1.5	5.9	9.3	0.2
Queue Length 50th (ft)	23	5	0	40	5	2	42	1	4	74	0
Queue Length 95th (ft)	28	10	13	53	26	11	381	22	26	209	2
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	443	627	594	471	582	630	2532	1129	447	2474	1113
Starvation Cap Reductn	0	0	0	0	0	0	526	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.01	0.15	0.14	0.13	0.08	0.56	0.07	0.10	0.28	0.03

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	6	60	54	6	54	44	926	65	42	683	34
Future Volume (veh/h)	26	6	60	54	6	54	44	926	65	42	683	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	9	0	68	8	68	53	1116	78	43	704	35
Peak Hour Factor	0.66	0.66	0.66	0.80	0.80	0.80	0.83	0.83	0.83	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	187		210	17	144	590	2473	1079	464	2459	1081
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.08	1.00	1.00	0.04	0.69	0.69
Sat Flow, veh/h	1321	1870	1585	1402	169	1437	1781	3554	1551	1781	3554	1562
Grp Volume(v), veh/h	39	9	0	68	0	76	53	1116	78	43	704	35
Grp Sat Flow(s),veh/h/ln	1321	1870	1585	1402	0	1607	1781	1777	1551	1781	1777	1562
Q Serve(g_s), s	2.7	0.4	0.0	4.4	0.0	4.2	0.8	0.0	0.0	0.6	7.2	0.7
Cycle Q Clear(g_c), s	7.0	0.4	0.0	4.8	0.0	4.2	0.8	0.0	0.0	0.6	7.2	0.7
Prop In Lane	1.00		1.00	1.00		0.89	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	187		210	0	161	590	2473	1079	464	2459	1081
V/C Ratio(X)	0.26	0.05		0.32	0.00	0.47	0.09	0.45	0.07	0.09	0.29	0.03
Avail Cap(c_a), veh/h	462	630		542	0	541	688	2473	1079	569	2459	1081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.88	0.88	0.88	0.96	0.96	0.96
Uniform Delay (d), s/veh	43.7	38.7	0.0	40.8	0.0	40.4	3.7	0.0	0.0	3.6	5.6	4.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.3	0.0	0.8	0.0	0.5	0.1	0.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.3	0.0	2.8	0.0	3.1	0.3	0.3	0.1	0.3	3.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.0	38.7	0.0	41.2	0.0	41.2	3.7	0.5	0.1	3.7	5.9	4.7
LnGrp LOS	D	D		D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		48	A		144			1247			782	
Approach Delay, s/veh		43.0			41.2			0.6			5.7	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	71.7		14.5	8.4	72.1		14.5				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	9.0	38.0		32.0	9.0	38.0		32.0				
Max Q Clear Time (g_c+I1), s	2.8	9.2		6.8	2.6	2.0		9.0				
Green Ext Time (p_c), s	0.0	13.2		0.2	0.0	24.6		0.0				

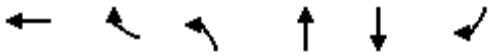
Intersection Summary			
HCM 6th Ctrl Delay		6.0	
HCM 6th LOS		A	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	12600.0	0.0	589765.2
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	10980.0
Crosswalk Circulation Code	-	-	-	A
Pedestrian Delay (s/p)	39.8	39.8	39.8	39.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.49	2.10	3.09	2.96
Pedestrian Crosswalk LOS	B	B	C	C

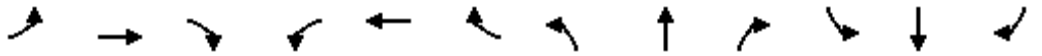
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	4
Total Flow Rate (veh/h)	139	144	1247	782
Effct. Green for Bike (s)	12.0	12.0	68.0	66.4
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	253	253	1432	1398
Bicycle Delay (s/bike)	36.3	36.3	3.8	4.3
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.10	3.17	1.62	1.71
Bicycle LOS	C	C	B	B



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	449	293	44	880	637	394
v/c Ratio	0.78	0.52	0.35	0.45	0.38	0.45
Control Delay	36.7	19.8	55.0	7.1	16.1	4.3
Queue Delay	0.0	0.0	0.0	0.1	0.2	0.3
Total Delay	36.7	19.8	55.0	7.2	16.4	4.7
Queue Length 50th (ft)	237	100	24	57	144	0
Queue Length 95th (ft)	257	126	m37	162	128	44
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	762	721	133	1964	1692	882
Starvation Cap Reductn	0	0	0	0	427	136
Spillback Cap Reductn	0	5	0	274	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.41	0.33	0.52	0.50	0.53

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



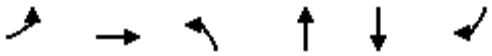
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	360	8	240	37	739	0	0	573	355
Future Volume (veh/h)	0	0	0	360	8	240	37	739	0	0	573	355
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				439	10	293	44	880	0	0	637	394
Peak Hour Factor				0.82	0.82	0.82	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				519	12	472	54	2088	0	0	1823	742
Arrive On Green				0.32	0.32	0.32	0.04	0.78	0.00	0.00	1.00	1.00
Sat Flow, veh/h				1633	37	1485	1668	3647	0	0	3647	1447
Grp Volume(v), veh/h				449	0	293	44	880	0	0	637	394
Grp Sat Flow(s),veh/h/ln				1670	0	1485	1668	1777	0	0	1777	1447
Q Serve(g_s), s				23.8	0.0	15.9	2.5	7.7	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				23.8	0.0	15.9	2.5	7.7	0.0	0.0	0.0	0.0
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				531	0	472	54	2088	0	0	1823	742
V/C Ratio(X)				0.85	0.00	0.62	0.81	0.42	0.00	0.00	0.35	0.53
Avail Cap(c_a), veh/h				774	0	688	123	2088	0	0	1823	742
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.83	0.83	0.00	0.00	0.96	0.96
Uniform Delay (d), s/veh				30.2	0.0	27.5	45.2	5.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				5.9	0.0	1.3	20.5	0.5	0.0	0.0	0.5	2.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				15.4	0.0	9.6	2.3	3.8	0.0	0.0	0.2	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				36.1	0.0	28.9	65.7	5.6	0.0	0.0	0.5	2.6
LnGrp LOS				D	A	C	E	A	A	A	A	A
Approach Vol, veh/h					742			924			1031	
Approach Delay, s/veh					33.3			8.5			1.3	
Approach LOS					C			A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	7.1	53.7				60.8		34.2				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	7.0	31.0				42.0		44.0				
Max Q Clear Time (g_c+I1), s	4.5	2.0				9.7		25.8				
Green Ext Time (p_c), s	0.0	6.7				6.7		4.4				

Intersection Summary			
HCM 6th Ctrl Delay			12.6
HCM 6th LOS			B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.94	2.26	2.90	2.96
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	1	5
Total Flow Rate (veh/h)	0	742	924	1031
Effct. Green for Bike (s)	0.0	33.3	52.7	45.4
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	701	1109	956
Bicycle Delay (s/bike)	0.0	20.0	9.4	13.0
Bicycle Compliance		Fair	Good	Fair
Bicycle LOS Score	0.00	2.77	1.69	1.52
Bicycle LOS		C	B	B

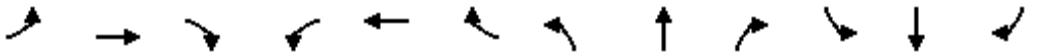


Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	399	377	91	386	970	82
v/c Ratio	0.89	0.74	0.50	0.18	0.57	0.07
Control Delay	54.9	29.8	48.5	8.9	23.7	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.9	29.8	48.5	8.9	23.7	0.3
Queue Length 50th (ft)	234	144	53	52	286	0
Queue Length 95th (ft)	#378	243	85	64	293	m0
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	475	531	212	2142	1692	1172
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.71	0.43	0.18	0.57	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	482	0	193	0	0	0	72	305	0	0	873	74
Future Volume (veh/h)	482	0	193	0	0	0	72	305	0	0	873	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	388	232	222	0	0	0	91	386	0	0	970	82
Peak Hour Factor	0.87	0.87	0.87	0.25	0.25	0.25	0.79	0.79	0.79	0.90	0.90	0.90
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	484	255	244	0	2	0	115	2149	0	0	1774	1153
Arrive On Green	0.29	0.29	0.29	0.00	0.00	0.00	0.07	0.60	0.00	0.00	0.50	0.50
Sat Flow, veh/h	1668	878	841	0	1870	0	1668	3647	0	0	3647	1448
Grp Volume(v), veh/h	388	0	454	0	0	0	91	386	0	0	970	82
Grp Sat Flow(s),veh/h/ln	1668	0	1719	0	1870	0	1668	1777	0	0	1777	1448
Q Serve(g_s), s	20.4	0.0	24.2	0.0	0.0	0.0	5.1	4.6	0.0	0.0	17.9	1.2
Cycle Q Clear(g_c), s	20.4	0.0	24.2	0.0	0.0	0.0	5.1	4.6	0.0	0.0	17.9	1.2
Prop In Lane	1.00		0.49	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	484	0	498	0	2	0	115	2149	0	0	1774	1153
V/C Ratio(X)	0.80	0.00	0.91	0.00	0.00	0.00	0.79	0.18	0.00	0.00	0.55	0.07
Avail Cap(c_a), veh/h	509	0	525	0	79	0	202	2149	0	0	1774	1153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.93	0.93
Uniform Delay (d), s/veh	31.2	0.0	32.5	0.0	0.0	0.0	43.6	8.3	0.0	0.0	16.4	2.2
Incr Delay (d2), s/veh	8.6	0.0	19.5	0.0	0.0	0.0	11.6	0.2	0.0	0.0	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.1	0.0	18.3	0.0	0.0	0.0	4.3	2.8	0.0	0.0	10.8	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	0.0	52.1	0.0	0.0	0.0	55.1	8.5	0.0	0.0	17.5	2.4
LnGrp LOS	D	A	D	A	A	A	E	A	A	A	B	A
Approach Vol, veh/h		842			0			477			1052	
Approach Delay, s/veh		46.4			0.0			17.4			16.3	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.0	53.4		31.5		63.5		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	11.5	33.0		29.0		48.0		4.0				
Max Q Clear Time (g_c+I1), s	7.1	19.9		26.2		6.6		0.0				
Green Ext Time (p_c), s	0.1	5.6		1.3		2.6		0.0				

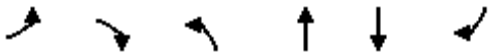
Intersection Summary			
HCM 6th Ctrl Delay		27.2	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.48	1.43	2.80	2.89
Pedestrian Crosswalk LOS	B	A	C	C

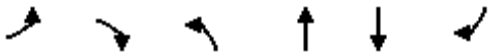
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	2	6
Total Flow Rate (veh/h)	776	0	477	1052
Effct. Green for Bike (s)	27.5	4.5	57.5	45.4
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	579	95	1211	956
Bicycle Delay (s/bike)	24.0	43.1	7.4	13.0
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.91	1.39	1.74	2.20
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1118	95	116	529	258	452
v/c Ratio	0.85	0.14	0.26	0.66	0.53	0.45
Control Delay	29.3	8.8	11.9	18.5	26.6	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.3	8.8	11.9	18.5	26.6	6.2
Queue Length 50th (ft)	212	8	27	159	96	65
Queue Length 95th (ft)	#436	44	52	245	162	113
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		180	200			
Base Capacity (vph)	1315	690	470	1773	1428	1006
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.14	0.25	0.30	0.18	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1073	91	104	476	248	434
Future Volume (veh/h)	1073	91	104	476	248	434
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	1118	95	116	529	258	452
Peak Hour Factor	0.96	0.96	0.90	0.90	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1306	623	349	813	511	1019
Arrive On Green	0.38	0.38	0.07	0.43	0.27	0.27
Sat Flow, veh/h	3456	1648	1781	1870	1870	1535
Grp Volume(v), veh/h	1118	95	116	529	258	452
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1535
Q Serve(g_s), s	19.1	2.4	2.8	14.3	7.5	9.3
Cycle Q Clear(g_c), s	19.1	2.4	2.8	14.3	7.5	9.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1306	623	349	813	511	1019
V/C Ratio(X)	0.86	0.15	0.33	0.65	0.50	0.44
Avail Cap(c_a), veh/h	1347	643	506	1050	1458	1796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.3	13.2	14.3	14.3	19.6	5.5
Incr Delay (d2), s/veh	6.4	0.3	0.6	1.1	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.8	0.1	1.8	8.7	5.4	10.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.8	13.5	14.9	15.4	20.7	5.9
LnGrp LOS	C	B	B	B	C	A
Approach Vol, veh/h	1213			645	710	
Approach Delay, s/veh	23.9			15.3	11.3	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		33.9		30.2	10.4	23.5
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0		25.0	10.0	50.0
Max Q Clear Time (g_c+I1), s		16.3		21.1	4.8	11.3
Green Ext Time (p_c), s		3.7		3.2	0.1	5.8

Intersection Summary		
HCM 6th Ctrl Delay		18.2
HCM 6th LOS		B

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	10.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	1	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196586.8	32400.0	294852.8
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	849.0	8666.9	0.0
Crosswalk Circulation Code	A	A	-
Pedestrian Delay (s/p)	43.8	43.8	51.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.86	2.44	2.91
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	3	6	4
Total Flow Rate (veh/h)	1213	645	710
Effct. Green for Bike (s)	25.5	28.8	17.3
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	495	559	336
Bicycle Delay (s/bike)	29.2	26.8	35.7
Bicycle Compliance	Fair	Fair	Poor
Bicycle LOS Score	2.04	2.35	2.44
Bicycle LOS	B	B	B

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	120	1210	279	0	671
Future Vol, veh/h	0	120	1210	279	0	671
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	95	95	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	129	1274	294	0	699

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	784	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	336	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	336	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	336	-
HCM Lane V/C Ratio	-	-	0.384	-
HCM Control Delay (s)	-	-	22.2	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1.8	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	39186.9
Level of Service	F

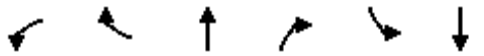
Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	1881
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.92
Delay for adq Gap	39188.77
Avg Ped Delay (s)	39186.85

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	39186.9
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	1881
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.92
Delay for adq Gap	39188.77
Avg Ped Delay (s)	39186.85

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	231	1502	77	636
v/c Ratio	0.44	0.62	0.42	0.25
Control Delay	22.5	7.4	15.2	4.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	22.5	7.4	15.2	4.7
Queue Length 50th (ft)	35	121	10	36
Queue Length 95th (ft)	68	338	72	110
Internal Link Dist (ft)	461	269		1054
Turn Bay Length (ft)			170	
Base Capacity (vph)	1369	2765	207	2864
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.17	0.54	0.37	0.22

Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	134	87	1039	298	70	579
Future Volume (vph)	134	87	1039	298	70	579
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		6.0		6.0	6.0
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	0.99		0.99		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.94		0.97		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3268		3402		1769	3539
Flt Permitted	0.97		1.00		0.14	1.00
Satd. Flow (perm)	3268		3402		258	3539
Peak-hour factor, PHF	0.96	0.96	0.89	0.89	0.91	0.91
Adj. Flow (vph)	140	91	1167	335	77	636
RTOR Reduction (vph)	68	0	19	0	0	0
Lane Group Flow (vph)	163	0	1483	0	77	636
Confl. Peds. (#/hr)		3		2	2	
Confl. Bikes (#/hr)				4		
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	10.5		54.0		54.0	54.0
Effective Green, g (s)	10.5		54.0		54.0	54.0
Actuated g/C Ratio	0.14		0.72		0.72	0.72
Clearance Time (s)	5.0		6.0		6.0	6.0
Vehicle Extension (s)	2.0		5.5		5.5	5.5
Lane Grp Cap (vph)	454		2433		184	2531
v/s Ratio Prot	c0.05		c0.44			0.18
v/s Ratio Perm					0.30	
v/c Ratio	0.36		0.61		0.42	0.25
Uniform Delay, d1	29.5		5.4		4.4	3.7
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	0.2		0.7		3.7	0.1
Delay (s)	29.6		6.1		8.1	3.9
Level of Service	C		A		A	A
Approach Delay (s)	29.6		6.1			4.3
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	11.0
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

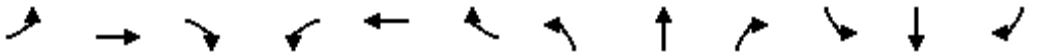
Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	1	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	2	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	4620.9	16173.2	10746.5
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	2052.3	0.0	3178.8
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	42.8	40.1	42.8
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	3.06	2.82
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	5	6
Total Flow Rate (veh/h)	231	1502	713
Effct. Green for Bike (s)	10.5	54.0	54.0
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	208	1069	1069
Bicycle Delay (s/bike)	40.6	11.0	11.0
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	1.17	2.43	2.07
Bicycle LOS	A	B	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	45	33	209	207	376	23	515	719	352	411
v/c Ratio	0.26	0.14	0.56	0.55	0.59	0.20	0.61	0.79	0.71	0.22
Control Delay	48.2	1.2	41.4	41.1	7.8	56.6	38.1	12.5	45.6	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.2	1.2	41.4	41.1	7.8	56.6	38.1	12.5	45.6	18.1
Queue Length 50th (ft)	25	0	113	112	0	13	138	96	183	57
Queue Length 95th (ft)	72	0	236	233	53	52	288	185	#586	192
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		100	165	
Base Capacity (vph)	333	363	938	943	1035	217	1580	1299	494	2122
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.09	0.22	0.22	0.36	0.11	0.33	0.55	0.71	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	17	29	338	12	316	22	484	676	317	358	12
Future Volume (veh/h)	23	17	29	338	12	316	22	484	676	317	358	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	19	33	412	0	0	23	515	719	352	398	13
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.94	0.94	0.94	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	49	36	70	525	0		42	1460	871	392	2129	69
Arrive On Green	0.05	0.05	0.05	0.15	0.00	0.00	0.02	0.41	0.41	0.22	0.61	0.61
Sat Flow, veh/h	1050	768	1512	3563	0	1585	1781	3554	1552	1781	3508	114
Grp Volume(v), veh/h	45	0	33	412	0	0	23	515	719	352	201	210
Grp Sat Flow(s),veh/h/ln	1818	0	1512	1781	0	1585	1781	1777	1552	1781	1777	1845
Q Serve(g_s), s	2.3	0.0	2.1	10.8	0.0	0.0	1.2	9.7	37.0	18.6	4.9	4.9
Cycle Q Clear(g_c), s	2.3	0.0	2.1	10.8	0.0	0.0	1.2	9.7	37.0	18.6	4.9	4.9
Prop In Lane	0.58		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	85	0	70	525	0		42	1460	871	392	1078	1120
V/C Ratio(X)	0.53	0.00	0.47	0.78	0.00		0.54	0.35	0.83	0.90	0.19	0.19
Avail Cap(c_a), veh/h	281	0	234	1836	0		202	1465	874	459	1078	1120
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	0.0	45.1	39.9	0.0	0.0	46.8	19.7	17.6	36.8	8.5	8.5
Incr Delay (d2), s/veh	1.9	0.0	1.8	1.0	0.0	0.0	4.0	0.3	7.2	18.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	0.0	1.4	8.1	0.0	0.0	1.0	6.9	25.6	14.9	3.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	0.0	46.9	40.8	0.0	0.0	50.8	20.0	24.9	55.7	8.6	8.6
LnGrp LOS	D	A	D	D	A		D	C	C	E	A	A
Approach Vol, veh/h		78			412	A		1257			763	
Approach Delay, s/veh		47.0			40.8			23.3			30.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.8	44.3		9.0	5.8	63.4		18.8				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	25.0	40.0		15.0	11.0	40.0		50.0				
Max Q Clear Time (g_c+I1), s	20.6	39.0		4.3	3.2	6.9		12.8				
Green Ext Time (p_c), s	0.7	0.9		0.1	0.0	4.9		1.1				

Intersection Summary		
HCM 6th Ctrl Delay		29.1
HCM 6th LOS		C

Notes

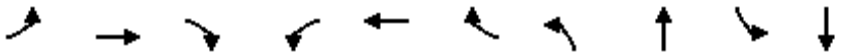
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	0	6	1	1
Ped. Right-Left Flow Rate (p/h)	0	3	3	1
Ped. R. Sidewalk Flow Rate (p/h)	1	1	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	117946.6	49123.9	45313.5	294866.4
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	1678.8	493.8
Crosswalk Circulation Code	-	F	A	A
Pedestrian Delay (s/p)	65.7	65.7	65.7	65.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.04	3.01	3.41	2.76
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	4	2	4	9
Total Flow Rate (veh/h)	78	792	1257	763
Effct. Green for Bike (s)	9.3	21.4	23.1	50.1
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	127	291	314	682
Bicycle Delay (s/bike)	64.6	53.7	52.3	32.1
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.73	3.88	2.29	1.87
Bicycle LOS	C	D	B	B

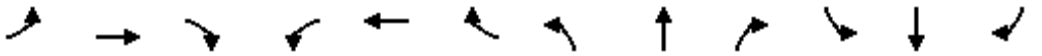


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	354	170	217	126	110	78	244	397	363	899
v/c Ratio	0.96	0.42	0.43	0.57	0.48	0.22	0.70	0.53	0.99	0.80
Control Delay	75.9	34.3	7.3	47.6	43.0	1.4	51.6	32.0	81.5	32.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.9	34.3	7.3	47.6	43.0	1.4	51.6	32.0	81.5	32.7
Queue Length 50th (ft)	199	85	0	67	59	0	69	94	~208	220
Queue Length 95th (ft)	#298	113	19	121	98	0	#140	161	#449	348
Internal Link Dist (ft)		1706			363			1325		863
Turn Bay Length (ft)	250			105		410	300		210	
Base Capacity (vph)	368	560	614	286	453	518	357	887	368	1246
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.30	0.35	0.44	0.24	0.15	0.68	0.45	0.99	0.72

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	121	154	103	90	64	234	326	55	330	646	172
Future Volume (veh/h)	251	121	154	103	90	64	234	326	55	330	646	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.94	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	354	170	217	126	110	78	244	340	57	363	710	189
Peak Hour Factor	0.71	0.71	0.71	0.82	0.82	0.82	0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	382	472	393	161	239	193	323	584	97	382	865	230
Arrive On Green	0.21	0.25	0.25	0.09	0.13	0.13	0.09	0.19	0.19	0.21	0.31	0.31
Sat Flow, veh/h	1781	1870	1561	1781	1870	1506	3456	3023	500	1781	2754	733
Grp Volume(v), veh/h	354	170	217	126	110	78	244	198	199	363	458	441
Grp Sat Flow(s),veh/h/ln	1781	1870	1561	1781	1870	1506	1728	1777	1746	1781	1777	1710
Q Serve(g_s), s	16.4	6.3	10.1	5.8	4.6	4.0	5.8	8.5	8.7	16.9	20.0	20.0
Cycle Q Clear(g_c), s	16.4	6.3	10.1	5.8	4.6	4.0	5.8	8.5	8.7	16.9	20.0	20.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.29	1.00		0.43
Lane Grp Cap(c), veh/h	382	472	393	161	239	193	323	343	337	382	558	537
V/C Ratio(X)	0.93	0.36	0.55	0.78	0.46	0.41	0.75	0.58	0.59	0.95	0.82	0.82
Avail Cap(c_a), veh/h	382	579	483	297	468	377	371	466	458	382	656	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	25.8	27.3	37.4	33.9	33.7	37.1	30.8	30.8	32.5	26.6	26.6
Incr Delay (d2), s/veh	28.4	0.2	0.5	8.1	0.5	0.5	6.7	2.0	2.1	33.2	7.6	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.7	4.8	6.5	5.0	3.6	2.6	4.7	6.5	6.6	15.6	13.9	13.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.7	26.0	27.7	45.5	34.4	34.2	43.8	32.7	33.0	65.7	34.2	34.5
LnGrp LOS	E	C	C	D	C	C	D	C	C	E	C	C
Approach Vol, veh/h		741			314			641			1262	
Approach Delay, s/veh		43.1			38.8			37.0			43.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	22.2	11.6	27.2	12.9	32.4	22.0	16.7
Change Period (Y+Rc), s	5.0	6.0	4.0	* 6	5.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	18.0	22.0	14.0	* 26	9.0	31.0	18.0	21.0
Max Q Clear Time (g_c+I1), s	18.9	10.7	7.8	12.1	7.8	22.0	18.4	6.6
Green Ext Time (p_c), s	0.0	2.1	0.2	1.0	0.1	4.3	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	41.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

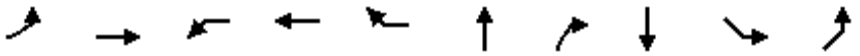
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	90.0	70.0	80.0	70.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	4	6	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	6.0	6.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	60.00	60.00	100.00
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	3	1	4	0
Ped. R. Sidewalk Flow Rate (p/h)	6	3	2	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	4063.9	4904.6	2324.1	30000.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	4667.7	1717.3	953.5	0.0
Crosswalk Circulation Code	A	A	A	-
Pedestrian Delay (s/p)	39.6	39.6	39.6	39.6
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.74	2.48	2.89	2.94
Pedestrian Crosswalk LOS	C	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	1	8	15
Total Flow Rate (veh/h)	741	314	641	1262
Effct. Green for Bike (s)	19.0	10.8	18.9	28.2
Cross Street Width (ft)	80.0	80.0	62.0	75.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	380	216	378	564
Bicycle Delay (s/bike)	32.9	39.8	33.0	26.0
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.72	2.02	1.75	2.46
Bicycle LOS	C	B	B	B

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	0
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	872	603	495	0
Demand Flow Rate, veh/h	903	633	504	0
Vehicles Circulating, veh/h	0	366	903	555
Vehicles Exiting, veh/h	555	1041	0	444
Ped Vol Crossing Leg, #/h	5	5	5	5
Ped Cap Adj	0.994	0.996	1.000	1.000
Approach Delay, s/veh	5.7	7.1	12.2	0.0
Approach LOS	A	A	B	-

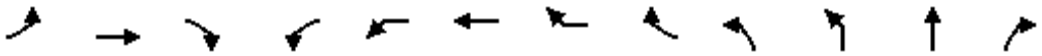
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	R
Assumed Moves	LT	TR	LT	TR	LT	R
RT Channelized						
Lane Util	0.470	0.530	0.471	0.529	0.361	0.639
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	424	479	298	335	182	322
Cap Entry Lane, veh/h	1350	1420	964	1040	588	659
Entry HV Adj Factor	0.966	0.965	0.950	0.953	0.983	0.981
Flow Entry, veh/h	410	462	283	319	179	316
Cap Entry, veh/h	1297	1362	913	988	578	647
V/C Ratio	0.316	0.339	0.310	0.323	0.309	0.489
Control Delay, s/veh	5.6	5.7	7.3	7.0	10.5	13.2
LOS	A	A	A	A	B	B
95th %tile Queue, veh	1	2	1	1	1	3



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	18	852	66	663	352	45	87	489	20	20
v/c Ratio	0.27	0.82	0.80	0.53	0.56	0.08	0.11	0.87	0.20	0.07
Control Delay	65.5	44.6	106.7	32.7	22.1	22.8	0.3	48.5	58.3	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.5	44.6	106.7	32.7	22.1	22.8	0.3	48.5	58.3	0.6
Queue Length 50th (ft)	11	246	41	148	80	15	0	249	12	0
Queue Length 95th (ft)	41	#496	#130	296	221	50	0	361	43	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	66	1038	83	1255	627	551	757	560	98	340
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.82	0.80	0.53	0.56	0.08	0.11	0.87	0.20	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	17	789	4	24	30	544	151	138	13	17	9	76
Future Volume (vph)	17	789	4	24	30	544	151	138	13	17	9	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00				1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.94				1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85				1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00	1.00				0.96	1.00
Satd. Flow (prot)	1770	3536			1770	3539	1490				1789	1554
Flt Permitted	0.95	1.00			0.95	1.00	1.00				0.70	1.00
Satd. Flow (perm)	1770	3536			1770	3539	1490				1293	1554
Peak-hour factor, PHF	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.87	0.87	0.87	0.87
Adj. Flow (vph)	18	848	4	29	37	663	184	168	15	20	10	87
RTOR Reduction (vph)	0	0	0	0	0	0	106	0	0	0	0	53
Lane Group Flow (vph)	18	852	0	0	66	663	246	0	0	0	45	34
Confl. Peds. (#/hr)			1				5	5	2	2		5
Confl. Bikes (#/hr)			2				4	4				5
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	Perm	NA	Perm
Protected Phases	5	2		1	1	6					8	
Permitted Phases							6		8	8		8
Actuated Green, G (s)	1.4	35.2			5.1	37.9	37.9				45.6	45.6
Effective Green, g (s)	1.4	35.2			5.1	37.9	37.9				45.6	45.6
Actuated g/C Ratio	0.01	0.30			0.04	0.32	0.32				0.39	0.39
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0				3.5	3.5
Lane Grp Cap (vph)	21	1062			77	1145	482				503	605
v/s Ratio Prot	0.01	c0.24			c0.04	c0.19						
v/s Ratio Perm							0.16				0.03	0.02
v/c Ratio	0.86	0.80			0.86	0.58	0.51				0.09	0.06
Uniform Delay, d1	57.8	37.7			55.6	33.0	32.1				22.6	22.3
Progression Factor	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Incremental Delay, d2	126.5	5.1			55.1	1.1	1.8				0.1	0.0
Delay (s)	184.3	42.8			110.8	34.1	33.9				22.7	22.4
Level of Service	F	D			F	C	C				C	C
Approach Delay (s)		45.7				38.7					22.5	
Approach LOS		D				D					C	

Intersection Summary			
HCM 2000 Control Delay	45.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	117.1	Sum of lost time (s)	27.0
Intersection Capacity Utilization	82.0%	ICU Level of Service	E
Analysis Period (min)	15		

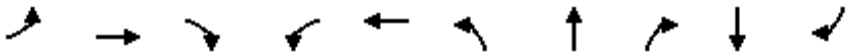
c Critical Lane Group

Movement	SBL	SBT	SBR	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations											
Traffic Volume (vph)	281	3	44	5	5	5	5	5	5	5	5
Future Volume (vph)	281	3	44	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0				5.0		
Lane Util. Factor		1.00			1.00				1.00		
Frpb, ped/bikes		1.00			1.00				1.00		
Flpb, ped/bikes		0.99			1.00				1.00		
Frt		0.98			0.93				0.93		
Flt Protected		0.96			0.98				0.98		
Satd. Flow (prot)		1739			1695				1695		
Flt Permitted		0.72			1.00				0.98		
Satd. Flow (perm)		1314			1737				1695		
Peak-hour factor, PHF	0.67	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	419	4	66	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	0	489	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)	5		2								
Confl. Bikes (#/hr)											
Turn Type	Perm	NA		Perm	Prot			Perm	Prot		
Protected Phases		4			7				3		
Permitted Phases	4			7				3			
Actuated Green, G (s)		45.6			2.1				3.1		
Effective Green, g (s)		45.6			2.1				3.1		
Actuated g/C Ratio		0.39			0.02				0.03		
Clearance Time (s)		5.0			5.0				5.0		
Vehicle Extension (s)		3.5			2.0				1.5		
Lane Grp Cap (vph)		511			31				44		
v/s Ratio Prot											
v/s Ratio Perm		c0.37			c0.01				0.00		
v/c Ratio		0.96			0.65				0.01		
Uniform Delay, d1		34.8			57.1				55.5		
Progression Factor		1.00			1.00				1.00		
Incremental Delay, d2		29.1			29.6				0.0		
Delay (s)		63.9			86.7				55.5		
Level of Service		E			F				E		
Approach Delay (s)		63.9			86.7				55.5		
Approach LOS		E			F				E		

Intersection Summary

Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29667.5	11552.9	0.0	72900.0	24278.3
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2260.8	4209.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	52.0	52.0	52.0	52.0	52.0	52.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.78	3.30	2.02	2.05	1.82	1.78
Pedestrian Crosswalk LOS	C	C	B	B	B	B

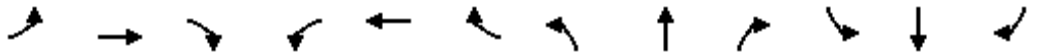
Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	870	1081	132	489	20	20
Effct. Green for Bike (s)	31.3	37.9	45.6	45.6	6.1	7.1
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	501	606	730	730	98	114
Bicycle Delay (s/bike)	35.2	30.5	25.4	25.3	56.5	55.6
Bicycle Compliance	Poor	Poor	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.78	1.55	2.87	2.74	2.62	2.20
Bicycle LOS	C	B	C	C	C	B



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	22	851	600	446	733	202	205	208	24	13
v/c Ratio	0.22	0.65	0.85	0.77	0.26	0.70	0.71	0.27	0.14	0.04
Control Delay	57.5	32.4	33.4	52.0	16.7	53.7	54.2	4.3	44.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.5	32.4	33.4	52.0	16.7	53.7	54.2	4.3	44.5	0.2
Queue Length 50th (ft)	13	232	229	138	74	126	128	0	14	0
Queue Length 95th (ft)	46	#461	#599	#281	193	173	176	4	29	0
Internal Link Dist (ft)		217			575		1379		108	
Turn Bay Length (ft)	145		90	350		150				50
Base Capacity (vph)	111	1300	705	576	2799	529	531	761	561	607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.65	0.85	0.77	0.26	0.38	0.39	0.27	0.04	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	732	516	361	560	34	263	1	135	14	1	8
Future Volume (veh/h)	19	732	516	361	560	34	263	1	135	14	1	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	851	600	446	691	42	406	0	208	22	2	12
Peak Hour Factor	0.86	0.86	0.86	0.81	0.81	0.81	0.65	0.65	0.65	0.64	0.64	0.64
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	1371	596	526	2551	154	568	0	493	62	6	59
Arrive On Green	0.02	0.39	0.39	0.15	0.52	0.52	0.16	0.00	0.16	0.04	0.04	0.04
Sat Flow, veh/h	1781	3554	1544	3456	4913	297	3563	0	1576	1639	149	1553
Grp Volume(v), veh/h	22	851	600	446	478	255	406	0	208	24	0	12
Grp Sat Flow(s),veh/h/ln	1781	1777	1544	1728	1702	1805	1781	0	1576	1788	0	1553
Q Serve(g_s), s	1.1	17.5	35.0	11.4	7.1	7.2	9.8	0.0	9.5	1.2	0.0	0.7
Cycle Q Clear(g_c), s	1.1	17.5	35.0	11.4	7.1	7.2	9.8	0.0	9.5	1.2	0.0	0.7
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	33	1371	596	526	1768	937	568	0	493	68	0	59
V/C Ratio(X)	0.66	0.62	1.01	0.85	0.27	0.27	0.71	0.00	0.42	0.35	0.00	0.20
Avail Cap(c_a), veh/h	118	1371	596	610	1768	937	1178	0	763	591	0	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.2	22.5	27.9	37.4	12.2	12.2	36.2	0.0	24.8	42.6	0.0	42.3
Incr Delay (d2), s/veh	11.2	2.1	38.6	8.9	0.4	0.7	1.3	0.0	0.4	1.9	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	11.4	25.0	9.0	4.5	5.0	7.5	0.0	6.1	1.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	24.6	66.4	46.3	12.6	12.9	37.4	0.0	25.2	44.5	0.0	43.4
LnGrp LOS	E	C	F	D	B	B	D	A	C	D	A	D
Approach Vol, veh/h		1473			1179			614			36	
Approach Delay, s/veh		42.1			25.4			33.3			44.1	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.8	41.0		9.4	7.7	53.1		20.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	16.0	35.0		30.0	6.0	45.0		30.0				
Max Q Clear Time (g_c+I1), s	13.4	37.0		3.2	3.1	9.2		11.8				
Green Ext Time (p_c), s	0.4	0.0		0.1	0.0	15.3		2.1				

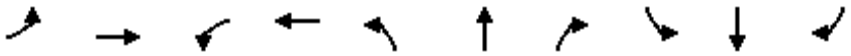
Intersection Summary												
HCM 6th Ctrl Delay			34.5									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	105.0	120.0	90.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	8	5	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	14.00	14.00	14.00	14.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	2
Ped. Right-Left Flow Rate (p/h)	1	0	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	40	25
Right Corner Area per Ped (sq.ft)	2477.3	2076.3	6300.0	1352.5
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3603.4	0.0	4994.2	1565.4
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	56.9	56.9	56.9	56.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.18	3.13	2.80	1.99
Pedestrian Crosswalk LOS	C	C	C	B

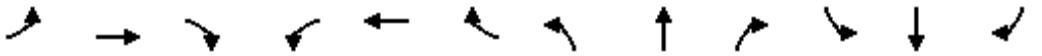
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	16	9	0	1
Total Flow Rate (veh/h)	1473	1179	615	36
Effct. Green for Bike (s)	36.3	55.0	16.9	9.5
Cross Street Width (ft)	70.0	55.0	87.0	82.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	538	815	250	141
Bicycle Delay (s/bike)	36.4	23.8	51.7	58.4
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.35	1.76	2.62	1.59
Bicycle LOS	B	B	C	B



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	1004	142	372	196	194	360	12	12	14
v/c Ratio	0.41	0.42	0.57	0.12	0.74	0.73	0.51	0.09	0.09	0.05
Control Delay	64.5	20.7	36.8	1.8	56.1	55.1	4.2	41.2	41.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.5	20.7	36.8	1.8	56.1	55.1	4.2	41.2	41.4	0.4
Queue Length 50th (ft)	18	164	94	15	125	123	3	7	7	0
Queue Length 95th (ft)	#52	250	160	19	166	165	16	16	16	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	70	2388	295	3144	315	317	724	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.42	0.48	0.12	0.62	0.61	0.50	0.04	0.05	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	867	57	126	324	7	290	10	277	8	7	9
Future Volume (veh/h)	27	867	57	126	324	7	290	10	277	8	7	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	29	942	62	142	364	8	386	0	360	12	12	14
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.77	0.77	0.77	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	387	1463	96	596	2260	49	510	0	753	53	52	47
Arrive On Green	0.22	0.30	0.30	0.71	0.88	0.88	0.15	0.00	0.15	0.03	0.03	0.03
Sat Flow, veh/h	1781	4875	320	1668	5137	112	3337	0	1459	1781	1752	1561
Grp Volume(v), veh/h	29	657	347	142	241	131	386	0	360	12	12	14
Grp Sat Flow(s),veh/h/ln	1781	1702	1791	1668	1702	1845	1668	0	1459	1781	1752	1561
Q Serve(g_s), s	1.3	16.7	16.8	2.9	1.0	1.0	11.1	0.0	0.0	0.7	0.7	0.9
Cycle Q Clear(g_c), s	1.3	16.7	16.8	2.9	1.0	1.0	11.1	0.0	0.0	0.7	0.7	0.9
Prop In Lane	1.00		0.18	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	387	1021	537	596	1498	812	510	0	753	53	52	47
V/C Ratio(X)	0.07	0.64	0.65	0.24	0.16	0.16	0.76	0.00	0.48	0.23	0.23	0.30
Avail Cap(c_a), veh/h	387	1021	537	596	1498	812	667	0	822	285	280	250
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	0.86	0.86	0.86	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	30.4	30.4	9.6	3.4	3.4	40.6	0.0	15.8	47.4	47.4	47.5
Incr Delay (d2), s/veh	0.1	2.3	4.4	0.2	0.2	0.4	3.6	0.0	0.5	2.1	2.2	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	10.7	11.6	1.8	0.7	0.8	8.3	0.0	8.9	0.6	0.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	32.7	34.8	9.8	3.6	3.8	44.2	0.0	16.3	49.5	49.6	51.0
LnGrp LOS	C	C	C	A	A	A	D	A	B	D	D	D
Approach Vol, veh/h		1033			514			746			38	
Approach Delay, s/veh		33.3			5.4			30.7			50.1	
Approach LOS		C			A			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.7	34.0		7.0	25.7	48.0		19.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	18.0	30.0		16.0	4.0	44.0		20.0				
Max Q Clear Time (g_c+I1), s	4.9	18.8		2.9	3.3	3.0		13.1				
Green Ext Time (p_c), s	0.4	5.0		0.1	0.0	2.5		2.2				

Intersection Summary			
HCM 6th Ctrl Delay		26.6	
HCM 6th LOS		C	

Notes

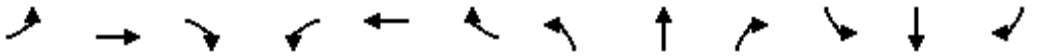
User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	100.0	90.0	100.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	0.1	8.0	0.1	12.0
Right Corner Size B (ft)	6.0	0.1	10.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.60	0.80	1.00	1.20
Ped. Left-Right Flow Rate (p/h)	0	0	3	1
Ped. Right-Left Flow Rate (p/h)	2	0	8	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21.6	668.2	44.2	270.0
Right Corner Quality of Service	D	A	B	A
Ped. Circulation Area (sq.ft)	6056.1	0.0	1035.7	11234.4
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.90	2.91	2.73	2.17
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	20	11	0	0
Total Flow Rate (veh/h)	1033	514	750	38
Effct. Green for Bike (s)	47.7	62.0	17.0	8.0
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	954	1240	340	160
Bicycle Delay (s/bike)	13.8	7.3	34.4	42.3
Bicycle Compliance	Fair	Good	Poor	Poor
Bicycle LOS Score	1.84	1.55	3.13	2.94
Bicycle LOS	B	B	C	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	613	1353	715	114	238
v/c Ratio	0.71	0.53	0.52	0.34	0.72
Control Delay	29.0	4.7	24.7	34.3	40.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	4.7	24.7	34.3	40.9
Queue Length 50th (ft)	182	71	164	64	118
Queue Length 95th (ft)	151	122	267	91	161
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	859	2531	1379	557	521
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.71	0.53	0.52	0.20	0.46

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	484	1069	0	0	487	135	100	3	207	0	0	0
Future Volume (veh/h)	484	1069	0	0	487	135	100	3	207	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	613	1353	0	0	560	155	114	3	235			
Peak Hour Factor	0.79	0.79	0.79	0.87	0.87	0.87	0.88	0.88	0.88			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1308	2538	0	0	740	204	343	4	299			
Arrive On Green	0.81	1.00	0.00	0.00	0.27	0.27	0.21	0.21	0.21			
Sat Flow, veh/h	3237	3647	0	0	2834	756	1668	19	1454			
Grp Volume(v), veh/h	613	1353	0	0	362	353	114	0	238			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1720	1668	0	1472			
Q Serve(g_s), s	5.8	0.0	0.0	0.0	18.7	18.8	5.8	0.0	15.3			
Cycle Q Clear(g_c), s	5.8	0.0	0.0	0.0	18.7	18.8	5.8	0.0	15.3			
Prop In Lane	1.00		0.00	0.00		0.44	1.00		0.99			
Lane Grp Cap(c), veh/h	1308	2538	0	0	480	464	343	0	303			
V/C Ratio(X)	0.47	0.53	0.00	0.00	0.76	0.76	0.33	0.00	0.79			
Avail Cap(c_a), veh/h	1308	2538	0	0	480	464	567	0	501			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.90	0.90	0.00	0.00	0.96	0.96	1.00	0.00	1.00			
Uniform Delay (d), s/veh	6.3	0.0	0.0	0.0	33.5	33.5	33.8	0.0	37.6			
Incr Delay (d2), s/veh	0.2	0.7	0.0	0.0	10.2	10.7	0.6	0.0	4.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.6	0.5	0.0	0.0	14.0	13.8	4.3	0.0	9.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.5	0.7	0.0	0.0	43.6	44.2	34.4	0.0	42.1			
LnGrp LOS	A	A	A	A	D	D	C	A	D			
Approach Vol, veh/h		1966			715			352				
Approach Delay, s/veh		2.5			43.9			39.6				
Approach LOS		A			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.4			44.4	31.0		24.6				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			27.0	27.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			7.8	20.8		17.3				
Green Ext Time (p_c), s		15.4			2.9	2.3		1.9				
Intersection Summary												
HCM 6th Ctrl Delay			16.6									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	100.0	55.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0	0.1
Right Corner Size B (ft)	6.0	6.0	6.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	3548.2	4628.6	1884.6	0.0
Right Corner Quality of Service	A	A	A	-
Ped. Circulation Area (sq.ft)	0.0	1347.2	1252.8	0.0
Crosswalk Circulation Code	-	A	A	-
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.97	2.82	2.01	2.10
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	7	12	0	0
Total Flow Rate (veh/h)	1966	715	352	0
Effct. Green for Bike (s)	71.5	40.5	20.5	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1430	810	410	0
Bicycle Delay (s/bike)	4.1	17.8	31.6	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.74	1.63	2.31	0.00
Bicycle LOS	C	B	B	

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	234	69	518	955
Demand Flow Rate, veh/h	238	70	529	974
Vehicles Circulating, veh/h	886	562	134	185
Vehicles Exiting, veh/h	273	101	990	447
Ped Vol Crossing Leg, #/h	5	5	0	0
Ped Cap Adj	1.000	0.999	1.000	1.000
Approach Delay, s/veh	10.3	4.9	4.9	7.4
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.471	0.529	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	238	70	249	280	458	516
Cap Entry Lane, veh/h	669	881	1193	1267	1139	1213
Entry HV Adj Factor	0.983	0.992	0.978	0.980	0.980	0.981
Flow Entry, veh/h	234	69	243	275	449	506
Cap Entry, veh/h	657	873	1167	1243	1116	1191
V/C Ratio	0.356	0.080	0.209	0.221	0.402	0.425
Control Delay, s/veh	10.3	4.9	4.9	4.8	7.4	7.4
LOS	B	A	A	A	A	A
95th %tile Queue, veh	2	0	1	1	2	2

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	2	452	363	2	821	315	155	504
v/c Ratio	0.01	1.00	0.23	0.03	0.93	0.37	1.04	0.46
Control Delay	0.0	88.3	0.3	63.0	48.4	7.0	137.5	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	88.3	0.3	63.0	48.4	7.0	137.5	18.6
Queue Length 50th (ft)	0	324	0	1	520	26	114	173
Queue Length 95th (ft)	0	#596	0	12	#1156	119	#323	480
Internal Link Dist (ft)	160	615			469			438
Turn Bay Length (ft)			180	120		370	490	
Base Capacity (vph)	525	450	1583	59	882	861	149	1095
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	1.00	0.23	0.03	0.93	0.37	1.04	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	350	2	283	2	772	296	136	443	1
Future Volume (veh/h)	0	0	1	350	2	283	2	772	296	136	443	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	2	449	3	0	2	821	0	155	503	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.94	0.94	0.94	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	15	455	3		4	858		153	1012	2
Arrive On Green	0.00	0.00	0.01	0.26	0.26	0.00	0.00	0.46	0.00	0.09	0.54	0.54
Sat Flow, veh/h	0	0	1539	1770	12	1585	1781	1870	1585	1781	1866	4
Grp Volume(v), veh/h	0	0	2	452	0	0	2	821	0	155	0	504
Grp Sat Flow(s),veh/h/ln	0	0	1539	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.2	29.5	0.0	0.0	0.1	49.4	0.0	10.0	0.0	19.7
Cycle Q Clear(g_c), s	0.0	0.0	0.2	29.5	0.0	0.0	0.1	49.4	0.0	10.0	0.0	19.7
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	15	458	0		4	858		153	0	1014
V/C Ratio(X)	0.00	0.00	0.14	0.99	0.00		0.52	0.96		1.02	0.00	0.50
Avail Cap(c_a), veh/h	0	0	356	458	0		61	898		153	0	1014
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	57.3	43.1	0.0	0.0	58.2	30.4	0.0	53.3	0.0	16.7
Incr Delay (d2), s/veh	0.0	0.0	4.1	38.4	0.0	0.0	80.6	19.8	0.0	76.9	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.1	24.1	0.0	0.0	0.3	33.0	0.0	12.2	0.0	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	61.4	81.5	0.0	0.0	138.7	50.2	0.0	130.2	0.0	17.1
LnGrp LOS	A	A	E	F	A		F	D		F	A	B
Approach Vol, veh/h		2			452	A		823	A		659	
Approach Delay, s/veh		61.4			81.5			50.5			43.7	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	59.6		6.1	5.3	69.3		36.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	10.0	56.0		27.0	4.0	62.0		30.0				
Max Q Clear Time (g_c+I1), s	12.0	51.4		2.2	2.1	21.7		31.5				
Green Ext Time (p_c), s	0.0	2.2		0.0	0.0	3.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		55.4	
HCM 6th LOS		E	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	1	1	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	9.0	183150.0	53470.3	-81.6
Right Corner Quality of Service	E	A	A	F
Ped. Circulation Area (sq.ft)	0.2	8957.0	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	72.5	63.8	63.8	72.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.44	2.82	2.97
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	15	4	7
Total Flow Rate (veh/h)	2	815	1138	659
Effct. Green for Bike (s)	9.1	30.3	56.6	70.2
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	126	418	781	968
Bicycle Delay (s/bike)	63.7	45.7	27.0	19.4
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.71	4.05	3.22	2.00
Bicycle LOS	C	D	C	B

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	109	196	1265	915	34
Future Vol, veh/h	11	109	196	1265	915	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	117	211	1360	984	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2105	511	1021	0	-	0
Stage 1	1003	-	-	-	-	-
Stage 2	1102	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	44	508	675	-	-	-
Stage 1	315	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	30	508	675	-	-	-
Mov Cap-2 Maneuver	30	-	-	-	-	-
Stage 1	216	-	-	-	-	-
Stage 2	280	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	30.2	1.7	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	675	-	30	508	-	-
HCM Lane V/C Ratio	0.312	-	0.394	0.231	-	-
HCM Control Delay (s)	12.7	-	188.4	14.2	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	1.3	-	1.3	0.9	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	10423177.0	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	2180	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.98	
Delay for adq Gap	10423179.00	
Avg Ped Delay (s)	10423177.00	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	353.2	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	915	1265
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.98	0.98
Prob of Blocked Lane	0.87	0.87
Delay for adq Gap	205.29	154.22
Avg Ped Delay (s)	201.64	151.57

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	169	63	1469	131	41	1071
v/c Ratio	0.30	0.20	0.72	0.14	0.18	0.45
Control Delay	25.6	8.2	17.3	3.9	7.6	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	8.2	17.3	3.9	7.6	7.3
Queue Length 50th (ft)	32	0	226	2	4	76
Queue Length 95th (ft)	42	14	#596	37	24	247
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1383	664	2034	918	394	2768
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.09	0.72	0.14	0.10	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	115	43	1410	126	38	985
Future Volume (veh/h)	115	43	1410	126	38	985
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	169	63	1469	131	41	1071
Peak Hour Factor	0.68	0.68	0.96	0.96	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	334	153	2038	878	272	2529
Arrive On Green	0.10	0.10	0.57	0.57	0.03	0.71
Sat Flow, veh/h	3456	1585	3647	1531	1781	3647
Grp Volume(v), veh/h	169	63	1469	131	41	1071
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1531	1781	1777
Q Serve(g_s), s	2.7	2.1	17.2	2.3	0.5	7.1
Cycle Q Clear(g_c), s	2.7	2.1	17.2	2.3	0.5	7.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	334	153	2038	878	272	2529
V/C Ratio(X)	0.51	0.41	0.72	0.15	0.15	0.42
Avail Cap(c_a), veh/h	1627	746	2169	935	585	3036
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	24.4	8.9	5.7	7.5	3.4
Incr Delay (d2), s/veh	1.2	1.8	1.5	0.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	3.6	9.1	1.1	0.2	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.8	26.1	10.4	5.9	7.6	3.6
LnGrp LOS	C	C	B	A	A	A
Approach Vol, veh/h	232		1600			1112
Approach Delay, s/veh	25.9		10.0			3.8
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		46.8		10.5	7.9	38.9
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		49.0		27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		9.1		4.7	2.5	19.2
Green Ext Time (p_c), s		16.9		1.0	0.0	13.7

Intersection Summary	
HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	48.6	72.1	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	7	0	5
Ped. Right-Left Flow Rate (p/h)	4	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	4524.3	6041.8	14580.0
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	F	-	F
Pedestrian Delay (s/p)	45.5	45.5	45.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	2.86	3.08
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	2	8	6
Total Flow Rate (veh/h)	232	1600	1112
Effct. Green for Bike (s)	11.4	39.7	46.4
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	251	873	1020
Bicycle Delay (s/bike)	34.8	14.5	11.0
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	2.82	2.36	1.45
Bicycle LOS	C	B	A

Intersection	
Int Delay, s/veh	4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	63	1479	55	44	1056
Future Vol, veh/h	25	63	1479	55	44	1056
Conflicting Peds, #/hr	0	0	0	19	19	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	83	1573	59	47	1123

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2278	835	0	0	1651	0
Stage 1	1622	-	-	-	-	-
Stage 2	656	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	47	267	-	-	187	-
Stage 1	101	-	-	-	-	-
Stage 2	464	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	34	262	-	-	184	-
Mov Cap-2 Maneuver	34	-	-	-	-	-
Stage 1	99	-	-	-	-	-
Stage 2	346	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	108.4	0	1.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	34	262	184	-
HCM Lane V/C Ratio	-	-	0.967	0.316	0.254	-
HCM Control Delay (s)	-	-	$ 318.4	25	31.1	-
HCM Lane LOS	-	-	F	D	D	-
HCM 95th %tile Q(veh)	-	-	3.4	1.3	1	-

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	3457.1	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	1479	1056
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	1.00	0.99
Prob of Blocked Lane	0.91	0.92
Delay for adq Gap	2937.29	525.50
Avg Ped Delay (s)	2934.87	522.20

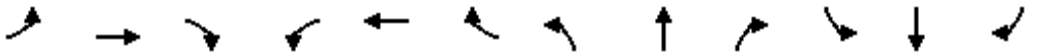
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	858230080.0
Level of Service	F

Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2535
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	858230080.00
Avg Ped Delay (s)	858230080.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	33	98	72	34	151	1710	15	1119	23
v/c Ratio	0.11	0.20	0.23	0.07	0.37	0.51	0.06	0.75	0.03
Control Delay	22.0	1.4	23.9	0.3	10.3	11.8	9.7	25.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	1.4	23.9	0.3	10.3	11.8	9.7	25.2	0.1
Queue Length 50th (ft)	11	0	25	0	15	93	1	171	0
Queue Length 95th (ft)	30	0	53	0	69	362	12	#471	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	505	681	519	665	652	3342	386	1632	787
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.14	0.14	0.05	0.23	0.51	0.04	0.69	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	4	79	42	15	27	136	1481	58	14	1041	21
Future Volume (veh/h)	23	4	79	42	15	27	136	1481	58	14	1041	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.97	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	5	98	52	19	34	151	1646	64	15	1119	23
Peak Hour Factor	0.81	0.81	0.81	0.80	0.80	0.80	0.90	0.90	0.90	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	10	450	90	20	445	314	2355	92	183	1393	586
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.09	0.47	0.47	0.01	0.39	0.39
Sat Flow, veh/h	0	33	1555	0	68	1536	1781	5031	196	1781	3554	1496
Grp Volume(v), veh/h	33	0	98	71	0	34	151	1113	597	15	1119	23
Grp Sat Flow(s),veh/h/ln	33	0	1555	68	0	1536	1781	1702	1823	1781	1777	1496
Q Serve(g_s), s	0.0	0.0	3.3	0.0	0.0	1.1	3.1	17.9	17.9	0.4	19.3	0.7
Cycle Q Clear(g_c), s	20.0	0.0	3.3	20.0	0.0	1.1	3.1	17.9	17.9	0.4	19.3	0.7
Prop In Lane	0.85		1.00	0.73		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	106	0	450	110	0	445	314	1593	853	183	1393	586
V/C Ratio(X)	0.31	0.00	0.22	0.64	0.00	0.08	0.48	0.70	0.70	0.08	0.80	0.04
Avail Cap(c_a), veh/h	106	0	450	110	0	445	675	1593	853	422	1492	628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	0.0	18.6	29.1	0.0	17.8	13.8	14.5	14.5	13.6	18.6	13.0
Incr Delay (d2), s/veh	2.3	0.0	0.3	13.7	0.0	0.1	2.4	1.6	3.0	0.1	3.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	0.0	2.1	2.9	0.0	0.7	2.1	9.8	10.8	0.2	11.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.0	0.0	18.9	42.8	0.0	17.9	16.3	16.2	17.6	13.8	22.3	13.0
LnGrp LOS	C	A	B	D	A	B	B	B	B	B	C	B
Approach Vol, veh/h		131			105			1861			1157	
Approach Delay, s/veh		22.0			34.7			16.6			22.0	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	33.1		25.0	5.8	38.3		25.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	29.0		20.0	10.0	29.0		20.0				
Max Q Clear Time (g_c+I1), s	5.1	21.3		22.0	2.4	19.9		22.0				
Green Ext Time (p_c), s	0.9	5.8		0.0	0.0	7.9		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		19.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

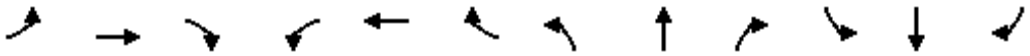
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	11	0	8
Ped. Right-Left Flow Rate (p/h)	1	12	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	196591.6	14365.2	25624.9	28061.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	6140.9	799.0	0.0	699.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	1.99	3.22	3.19
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	3	10	9
Total Flow Rate (veh/h)	131	105	1861	1157
Effct. Green for Bike (s)	15.3	15.3	45.6	29.0
Cross Street Width (ft)	80.0	80.0	36.0	40.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	360	360	1073	682
Bicycle Delay (s/bike)	28.6	28.6	9.2	18.5
Bicycle Compliance	Fair	Fair	Good	Fair
Bicycle LOS Score	3.00	2.96	3.13	2.05
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	73	176	323	345	323	107	1144	218	396	831
v/c Ratio	0.30	0.69	0.37	0.79	0.53	0.51	0.75	0.23	0.77	0.72
Control Delay	47.2	57.0	36.9	49.9	7.5	59.7	40.4	2.2	58.7	37.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	57.0	36.9	49.9	7.5	59.7	40.4	2.2	58.7	37.5
Queue Length 50th (ft)	49	114	100	221	0	77	278	0	145	270
Queue Length 95th (ft)	80	157	155	#408	82	#165	369	35	#237	380
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	375	387	909	452	618	210	1527	967	515	1240
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.45	0.36	0.76	0.52	0.51	0.75	0.23	0.77	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	95	42	297	157	457	101	1075	205	376	747	43
Future Volume (veh/h)	57	95	42	297	157	457	101	1075	205	376	747	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	122	54	323	416	334	107	1144	218	396	786	45
Peak Hour Factor	0.78	0.78	0.78	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	261	176	78	925	486	394	215	1509	869	476	1064	61
Arrive On Green	0.15	0.15	0.15	0.26	0.26	0.26	0.12	0.30	0.30	0.14	0.31	0.31
Sat Flow, veh/h	1781	1203	533	3563	1870	1517	1781	5106	1546	3456	3408	195
Grp Volume(v), veh/h	73	0	176	323	416	334	107	1144	218	396	410	421
Grp Sat Flow(s),veh/h/ln	1781	0	1736	1781	1870	1517	1781	1702	1546	1728	1777	1827
Q Serve(g_s), s	4.1	0.0	10.8	8.3	23.7	23.4	6.3	22.8	8.2	12.5	23.1	23.1
Cycle Q Clear(g_c), s	4.1	0.0	10.8	8.3	23.7	23.4	6.3	22.8	8.2	12.5	23.1	23.1
Prop In Lane	1.00		0.31	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	261	0	254	925	486	394	215	1509	869	476	555	570
V/C Ratio(X)	0.28	0.00	0.69	0.35	0.86	0.85	0.50	0.76	0.25	0.83	0.74	0.74
Avail Cap(c_a), veh/h	382	0	372	954	501	406	215	1550	881	525	635	652
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.5	0.0	45.4	33.7	39.5	39.4	46.0	35.8	12.9	47.0	34.4	34.4
Incr Delay (d2), s/veh	0.4	0.0	2.5	0.8	16.4	18.5	0.7	3.6	0.7	14.2	8.5	8.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.3	0.0	8.4	6.4	18.5	15.6	4.9	14.6	8.4	10.2	16.2	16.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	0.0	47.9	34.6	55.8	57.9	46.7	39.4	13.6	61.2	43.0	42.8
LnGrp LOS	D	A	D	C	E	E	D	D	B	E	D	D
Approach Vol, veh/h		249			1073			1469			1227	
Approach Delay, s/veh		46.5			50.1			36.1			48.8	
Approach LOS		D			D			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.4	17.5	39.0		34.1	19.4	37.1				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	11.0	40.0		30.0	17.0	34.0				
Max Q Clear Time (g_c+I1), s		12.8	8.3	25.1		25.7	14.5	24.8				
Green Ext Time (p_c), s		0.8	0.0	9.9		3.4	0.9	8.3				

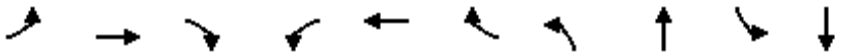
Intersection Summary												
HCM 6th Ctrl Delay			44.4									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	3	3	10
Ped. Right-Left Flow Rate (p/h)	5	1	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53572.2	24545.0	7429.8	21034.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1234.7	2379.2	2056.0	351.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	51.0	51.0	53.8	53.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.15	3.05	3.17	3.48
Pedestrian Crosswalk LOS	B	C	C	C

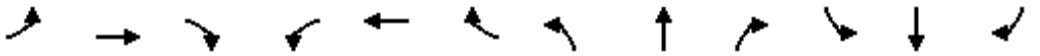
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	14	7	3
Total Flow Rate (veh/h)	249	991	1469	1227
Effct. Green for Bike (s)	15.5	29.0	34.1	37.6
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	252	472	554	611
Bicycle Delay (s/bike)	47.1	36.2	32.2	29.7
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.24	4.39	2.08	2.62
Bicycle LOS	C	D	B	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	401	204	271	237	182	206	478	1060	213	1176
v/c Ratio	0.73	0.52	0.50	0.55	0.57	0.48	0.76	0.60	0.63	0.88
Control Delay	49.4	40.3	7.5	47.5	44.7	9.7	47.9	29.1	54.4	44.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	40.3	7.5	47.5	44.7	9.7	47.9	29.1	54.4	44.6
Queue Length 50th (ft)	124	118	0	74	110	5	148	192	68	250
Queue Length 95th (ft)	#215	197	63	129	179	63	243	312	#138	#472
Internal Link Dist (ft)		461			455			697		1255
Turn Bay Length (ft)	240		240	300		200	300		200	
Base Capacity (vph)	635	419	560	1201	651	671	777	1920	353	1333
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.49	0.48	0.20	0.28	0.31	0.62	0.55	0.60	0.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	361	184	244	213	164	185	464	957	71	194	891	179
Future Volume (veh/h)	361	184	244	213	164	185	464	957	71	194	891	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	401	204	271	237	182	206	478	987	73	213	979	197
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	499	444	368	345	360	298	586	1707	126	289	1131	227
Arrive On Green	0.14	0.24	0.24	0.10	0.19	0.19	0.17	0.35	0.35	0.08	0.27	0.27
Sat Flow, veh/h	3456	1870	1552	3456	1870	1550	3456	4844	358	3456	4246	852
Grp Volume(v), veh/h	401	204	271	237	182	206	478	693	367	213	784	392
Grp Sat Flow(s),veh/h/ln	1728	1870	1552	1728	1870	1550	1728	1702	1798	1728	1702	1694
Q Serve(g_s), s	10.4	8.6	14.9	6.1	8.0	11.4	12.3	15.3	15.4	5.6	20.3	20.4
Cycle Q Clear(g_c), s	10.4	8.6	14.9	6.1	8.0	11.4	12.3	15.3	15.4	5.6	20.3	20.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		0.50
Lane Grp Cap(c), veh/h	499	444	368	345	360	298	586	1199	633	289	907	451
V/C Ratio(X)	0.80	0.46	0.74	0.69	0.51	0.69	0.82	0.58	0.58	0.74	0.86	0.87
Avail Cap(c_a), veh/h	673	444	368	1272	688	570	823	1363	720	374	921	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.3	30.2	32.6	40.2	33.4	34.7	37.0	24.3	24.4	41.3	32.3	32.3
Incr Delay (d2), s/veh	5.1	0.7	7.5	2.4	1.1	2.9	4.4	1.3	2.5	5.4	9.7	18.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.3	7.1	10.4	4.9	6.8	8.0	9.1	9.9	10.6	4.5	13.9	15.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	30.9	40.1	42.6	34.5	37.6	41.4	25.6	26.8	46.8	42.0	50.3
LnGrp LOS	D	C	D	D	C	D	D	C	C	D	D	D
Approach Vol, veh/h		876			625			1538			1389	
Approach Delay, s/veh		39.5			38.6			30.8			45.1	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	30.6	14.2	26.9	12.7	38.6	18.3	22.8
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	22.0	25.0	34.0	18.0	10.0	37.0	18.0	34.0
Max Q Clear Time (g_c+I1), s	14.3	22.4	8.1	16.9	7.6	17.4	12.4	13.4
Green Ext Time (p_c), s	1.3	2.2	1.1	0.3	0.2	12.3	1.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	38.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	100.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	6	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	0	5	0	0
Ped. Right-Left Flow Rate (p/h)	2	2	0	5
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	44935.8	7489.3	12811.3	12811.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3628.0	1451.2	0.0	1961.9
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	51.3	51.3	60.0	51.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.79	2.65	3.30	3.30
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	3	3	3
Total Flow Rate (veh/h)	876	625	1538	1389
Effct. Green for Bike (s)	20.7	17.1	34.7	26.2
Cross Street Width (ft)	100.0	99.0	80.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	345	285	578	437
Bicycle Delay (s/bike)	41.1	44.2	30.4	36.7
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	4.53	2.82	2.34	1.96
Bicycle LOS	E	C	B	B

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	86	101	1652	44	1461
v/c Ratio	0.30	0.36	0.63	0.29	0.55
Control Delay	22.5	18.9	6.0	10.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	18.9	6.0	10.0	5.2
Queue Length 50th (ft)	24	20	114	4	92
Queue Length 95th (ft)	47	44	215	26	172
Internal Link Dist (ft)	233		1200		376
Turn Bay Length (ft)		175		100	
Base Capacity (vph)	586	544	2641	154	2657
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.15	0.19	0.63	0.29	0.55

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	66	78	1445	58	40	1315
Future Volume (veh/h)	66	78	1445	58	40	1315
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	101	1588	64	44	1461
Peak Hour Factor	0.77	0.77	0.91	0.91	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	189	168	2412	97	312	2464
Arrive On Green	0.11	0.11	0.69	0.69	0.69	0.69
Sat Flow, veh/h	1781	1585	3571	140	302	3647
Grp Volume(v), veh/h	86	101	808	844	44	1461
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1840	302	1777
Q Serve(g_s), s	1.8	2.4	10.2	10.3	3.8	8.5
Cycle Q Clear(g_c), s	1.8	2.4	10.2	10.3	14.2	8.5
Prop In Lane	1.00	1.00		0.08	1.00	
Lane Grp Cap(c), veh/h	189	168	1232	1276	312	2464
V/C Ratio(X)	0.46	0.60	0.66	0.66	0.14	0.59
Avail Cap(c_a), veh/h	715	636	1604	1662	375	3209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	17.0	3.4	3.5	7.5	3.2
Incr Delay (d2), s/veh	1.7	3.4	0.6	0.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	1.7	0.4	0.4	0.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.5	20.5	4.1	4.1	7.7	3.4
LnGrp LOS	B	C	A	A	A	A
Approach Vol, veh/h	187		1652			1505
Approach Delay, s/veh	19.5		4.1			3.5
Approach LOS	B		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		31.6			31.6	8.2
Change Period (Y+Rc), s		4.0			4.0	4.0
Max Green Setting (Gmax), s		36.0			36.0	16.0
Max Q Clear Time (g_c+I1), s		12.3			16.2	4.4
Green Ext Time (p_c), s		12.9			11.5	0.4

Intersection Summary		
HCM 6th Ctrl Delay	4.7	
HCM 6th LOS	A	

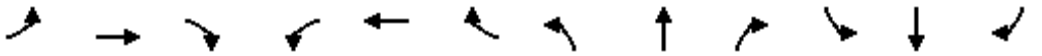
Approach	WB	NB	SB
Crosswalk Length (ft)	35.9	59.9	60.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	30.0	30.0	30.0
Pedestrian Compliance Code	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.01	3.29	3.23
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	187	1652	1505
Effct. Green for Bike (s)	8.2	37.6	37.6
Cross Street Width (ft)	60.1	35.9	59.9
Through Lanes Number	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	273	1253	1253
Bicycle Delay (s/bike)	22.4	4.2	4.2
Bicycle Compliance	Fair	Good	Good
Bicycle LOS Score	2.79	3.47	3.72
Bicycle LOS	C	C	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	37	9	74	152	78	70	1554	54	44	1356	47
v/c Ratio	0.19	0.03	0.24	0.74	0.26	0.25	0.66	0.05	0.18	0.59	0.05
Control Delay	35.5	31.6	6.8	59.1	10.6	5.4	15.7	2.6	6.0	12.7	1.0
Queue Delay	0.0	0.0	0.1	1.0	0.0	0.0	9.6	0.0	0.0	0.0	0.0
Total Delay	35.5	31.6	6.9	60.1	10.6	5.4	25.3	2.6	6.0	12.8	1.0
Queue Length 50th (ft)	20	5	0	89	1	12	440	1	6	235	0
Queue Length 95th (ft)	41	15	19	130	31	m13	558	m10	18	386	6
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	442	627	594	471	586	337	2351	1044	293	2285	1034
Starvation Cap Reductn	0	0	0	0	0	0	779	0	0	0	0
Spillback Cap Reductn	0	0	174	152	0	0	0	0	0	9	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.01	0.18	0.48	0.13	0.21	0.99	0.05	0.15	0.60	0.05

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	7	61	126	2	63	66	1461	51	42	1288	45
Future Volume (veh/h)	30	7	61	126	2	63	66	1461	51	42	1288	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	9	0	152	2	76	70	1554	54	44	1356	47
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	251		258	5	208	323	2350	1021	266	2321	1019
Arrive On Green	0.13	0.13	0.00	0.13	0.13	0.13	0.04	0.66	0.66	0.04	0.65	0.65
Sat Flow, veh/h	1321	1870	1585	1406	41	1550	1781	3554	1544	1781	3554	1560
Grp Volume(v), veh/h	37	9	0	152	0	78	70	1554	54	44	1356	47
Grp Sat Flow(s),veh/h/ln	1321	1870	1585	1406	0	1591	1781	1777	1544	1781	1777	1560
Q Serve(g_s), s	2.5	0.4	0.0	10.0	0.0	4.2	1.2	25.0	1.2	0.7	20.3	1.0
Cycle Q Clear(g_c), s	6.7	0.4	0.0	10.4	0.0	4.2	1.2	25.0	1.2	0.7	20.3	1.0
Prop In Lane	1.00		1.00	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	194	251		258	0	213	323	2350	1021	266	2321	1019
V/C Ratio(X)	0.19	0.04		0.59	0.00	0.37	0.22	0.66	0.05	0.17	0.58	0.05
Avail Cap(c_a), veh/h	462	630		544	0	536	413	2350	1021	370	2321	1019
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.70	0.70	0.70	0.83	0.83	0.83
Uniform Delay (d), s/veh	40.5	35.8	0.0	40.3	0.0	37.5	7.2	9.7	5.6	8.3	9.2	5.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.8	0.0	0.4	0.1	1.0	0.1	0.2	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.3	0.0	6.3	0.0	3.0	0.6	11.6	0.6	0.4	10.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	35.8	0.0	41.1	0.0	37.8	7.3	10.7	5.7	8.5	10.1	6.0
LnGrp LOS	D	D		D	A	D	A	B	A	A	B	A
Approach Vol, veh/h		46	A		230			1678			1447	
Approach Delay, s/veh		39.7			40.0			10.4			10.0	
Approach LOS		D			D			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	68.1		17.7	8.4	68.8		17.7				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	9.0	38.0		32.0	9.0	38.0		32.0				
Max Q Clear Time (g_c+I1), s	3.2	22.3		12.4	2.7	27.0		8.7				
Green Ext Time (p_c), s	0.0	13.8		0.3	0.0	10.4		0.0				

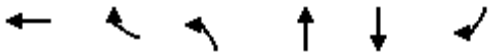
Intersection Summary			
HCM 6th Ctrl Delay		12.6	
HCM 6th LOS		B	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	39.8	39.8	39.8	39.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.49	2.12	3.37	3.23
Pedestrian Crosswalk LOS	B	B	C	C

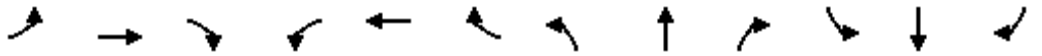
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	4
Total Flow Rate (veh/h)	120	230	1678	1447
Effct. Green for Bike (s)	13.9	13.9	63.1	61.3
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	7.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	293	293	1328	1291
Bicycle Delay (s/bike)	34.6	34.6	5.4	6.0
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.07	3.32	1.98	0.76
Bicycle LOS	C	C	B	A



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	260	349	97	1420	786	678
v/c Ratio	0.58	0.77	0.49	0.64	0.47	0.71
Control Delay	33.3	35.8	53.0	8.1	21.3	13.1
Queue Delay	0.0	0.1	0.0	35.5	0.6	0.3
Total Delay	33.3	35.8	53.0	43.6	22.0	13.5
Queue Length 50th (ft)	135	157	58	126	123	30
Queue Length 95th (ft)	173	212	m82	286	239	#273
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	763	716	196	2232	1660	950
Starvation Cap Reductn	0	0	0	0	487	41
Spillback Cap Reductn	0	17	0	902	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.50	0.49	1.07	0.67	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



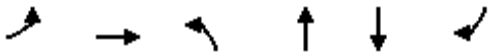
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	223	8	311	84	1235	0	0	723	624
Future Volume (veh/h)	0	0	0	223	8	311	84	1235	0	0	723	624
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				251	9	349	97	1420	0	0	786	678
Peak Hour Factor				0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				449	16	413	120	2228	0	0	1822	741
Arrive On Green				0.28	0.28	0.28	0.10	0.83	0.00	0.00	1.00	1.00
Sat Flow, veh/h				1613	58	1485	1668	3647	0	0	3647	1446
Grp Volume(v), veh/h				260	0	349	97	1420	0	0	786	678
Grp Sat Flow(s),veh/h/ln				1671	0	1485	1668	1777	0	0	1777	1446
Q Serve(g_s), s				12.6	0.0	21.1	5.4	13.5	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				12.6	0.0	21.1	5.4	13.5	0.0	0.0	0.0	0.0
Prop In Lane				0.97		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				465	0	413	120	2228	0	0	1822	741
V/C Ratio(X)				0.56	0.00	0.84	0.81	0.64	0.00	0.00	0.43	0.91
Avail Cap(c_a), veh/h				774	0	688	123	2228	0	0	1822	741
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	0.78	0.78
Uniform Delay (d), s/veh				29.3	0.0	32.3	42.3	4.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				1.1	0.0	5.0	26.4	1.2	0.0	0.0	0.6	14.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				8.8	0.0	12.6	5.4	5.0	0.0	0.0	0.3	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.3	0.0	37.4	68.7	5.2	0.0	0.0	0.6	14.7
LnGrp LOS				C	A	D	E	A	A	A	A	B
Approach Vol, veh/h					609			1517			1464	
Approach Delay, s/veh					34.4			9.3			7.1	
Approach LOS					C			A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	10.8	53.7				64.5		30.5				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	7.0	31.0				42.0		44.0				
Max Q Clear Time (g_c+I1), s	7.4	2.0				15.5		23.1				
Green Ext Time (p_c), s	0.0	10.5				11.9		3.4				

Intersection Summary			
HCM 6th Ctrl Delay			12.7
HCM 6th LOS			B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	630.0	133.2	11000.7	581.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.3	2436.3	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.27	2.20	3.06	3.26
Pedestrian Crosswalk LOS	B	B	C	C

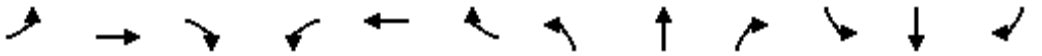
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	7
Total Flow Rate (veh/h)	0	609	1517	1464
Effct. Green for Bike (s)	0.0	26.1	59.9	44.6
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	549	1261	939
Bicycle Delay (s/bike)	0.0	25.0	6.5	13.4
Bicycle Compliance		Fair	Good	Fair
Bicycle LOS Score	0.00	2.55	2.18	1.88
Bicycle LOS		C	B	B



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	411	385	198	765	744	345
v/c Ratio	0.90	0.73	0.61	0.36	0.57	0.32
Control Delay	55.8	29.5	43.7	10.5	21.0	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.8	29.5	43.7	10.5	21.0	3.2
Queue Length 50th (ft)	245	149	109	117	164	43
Queue Length 95th (ft)	#421	266	182	154	196	0
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	475	538	323	2122	1294	1107
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.72	0.61	0.36	0.57	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	573	0	159	0	0	0	190	734	0	0	647	300
Future Volume (veh/h)	573	0	159	0	0	0	190	734	0	0	647	300
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	398	315	173	0	0	0	198	765	0	0	744	345
Peak Hour Factor	0.92	0.92	0.92	0.25	0.25	0.25	0.96	0.96	0.96	0.87	0.87	0.87
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	498	339	186	0	2	0	202	2119	0	0	1558	1076
Arrive On Green	0.30	0.30	0.30	0.00	0.00	0.00	0.12	0.60	0.00	0.00	0.29	0.29
Sat Flow, veh/h	1668	1135	623	0	1870	0	1668	3647	0	0	3647	1443
Grp Volume(v), veh/h	398	0	488	0	0	0	198	765	0	0	744	345
Grp Sat Flow(s),veh/h/ln	1668	0	1758	0	1870	0	1668	1777	0	0	1777	1443
Q Serve(g_s), s	20.9	0.0	25.6	0.0	0.0	0.0	11.2	10.5	0.0	0.0	16.3	8.9
Cycle Q Clear(g_c), s	20.9	0.0	25.6	0.0	0.0	0.0	11.2	10.5	0.0	0.0	16.3	8.9
Prop In Lane	1.00		0.35	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	498	0	525	0	2	0	202	2119	0	0	1558	1076
V/C Ratio(X)	0.80	0.00	0.93	0.00	0.00	0.00	0.98	0.36	0.00	0.00	0.48	0.32
Avail Cap(c_a), veh/h	509	0	537	0	79	0	202	2119	0	0	1558	1076
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.88	0.88
Uniform Delay (d), s/veh	30.7	0.0	32.4	0.0	0.0	0.0	41.6	9.9	0.0	0.0	24.6	5.6
Incr Delay (d2), s/veh	8.6	0.0	22.7	0.0	0.0	0.0	57.5	0.5	0.0	0.0	0.9	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.4	0.0	20.0	0.0	0.0	0.0	12.2	6.5	0.0	0.0	11.4	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	55.1	0.0	0.0	0.0	99.1	10.3	0.0	0.0	25.5	6.3
LnGrp LOS	D	A	E	A	A	A	F	B	A	A	C	A
Approach Vol, veh/h		886			0			963			1089	
Approach Delay, s/veh		48.0			0.0			28.6			19.4	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	15.0	47.6		32.4		62.6		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	11.5	33.0		29.0		48.0		4.0				
Max Q Clear Time (g_c+I1), s	13.2	18.3		27.6		12.5		0.0				
Green Ext Time (p_c), s	0.0	5.6		0.7		5.6		0.0				

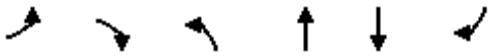
Intersection Summary			
HCM 6th Ctrl Delay		31.1	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	589815.0	7990.2	32375.7	589766.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	8363.4	1986.5	0.0	0.0
Crosswalk Circulation Code	A	A	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.61	1.43	2.86	3.04
Pedestrian Crosswalk LOS	C	A	C	C

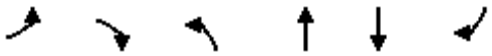
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	8
Total Flow Rate (veh/h)	796	0	963	1089
Effct. Green for Bike (s)	28.0	4.3	57.0	34.7
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	589	91	1200	731
Bicycle Delay (s/bike)	23.6	43.3	7.6	19.2
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.94	1.39	2.14	2.23
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	868	87	69	295	578	820
v/c Ratio	0.78	0.14	0.23	0.31	0.81	0.74
Control Delay	34.2	9.6	9.9	10.6	32.2	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	9.6	9.9	10.6	32.2	10.4
Queue Length 50th (ft)	212	5	16	76	263	169
Queue Length 95th (ft)	#418	44	30	112	395	297
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		180	200			
Base Capacity (vph)	1116	602	342	1515	1211	1102
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.14	0.20	0.19	0.48	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	799	80	60	257	555	787
Future Volume (veh/h)	799	80	60	257	555	787
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	868	87	69	295	578	820
Peak Hour Factor	0.92	0.92	0.87	0.87	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	980	468	252	1078	859	1156
Arrive On Green	0.28	0.28	0.05	0.58	0.46	0.46
Sat Flow, veh/h	3456	1648	1781	1870	1870	1538
Grp Volume(v), veh/h	868	87	69	295	578	820
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1538
Q Serve(g_s), s	20.6	3.4	1.6	6.8	20.7	25.2
Cycle Q Clear(g_c), s	20.6	3.4	1.6	6.8	20.7	25.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	980	468	252	1078	859	1156
V/C Ratio(X)	0.89	0.19	0.27	0.27	0.67	0.71
Avail Cap(c_a), veh/h	1007	480	376	1078	1090	1346
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.4	23.2	13.5	9.1	18.1	6.1
Incr Delay (d2), s/veh	10.5	0.5	0.6	0.2	1.4	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.3	6.5	1.1	4.2	13.0	24.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.9	23.8	14.1	9.3	19.6	7.7
LnGrp LOS	D	C	B	A	B	A
Approach Vol, veh/h	955			364	1398	
Approach Delay, s/veh	38.4			10.2	12.6	
Approach LOS	D			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		55.5		30.3	10.0	45.4
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0		25.0	10.0	50.0
Max Q Clear Time (g_c+I1), s		8.8		22.6	3.6	27.2
Green Ext Time (p_c), s		2.0		1.7	0.1	12.3

Intersection Summary		
HCM 6th Ctrl Delay		21.4
HCM 6th LOS		C

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196586.8	0.0	196568.5
Right Corner Quality of Service	A	-	A
Ped. Circulation Area (sq.ft)	566.1	0.0	0.0
Crosswalk Circulation Code	A	-	-
Pedestrian Delay (s/p)	43.8	43.8	51.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.88	2.45	2.98
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	0	8	7
Total Flow Rate (veh/h)	955	364	1398
Effct. Green for Bike (s)	26.1	41.7	30.7
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	507	810	596
Bicycle Delay (s/bike)	28.7	18.3	25.5
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	1.83	1.88	3.57
Bicycle LOS	B	B	D

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	98	913	218	0	1489
Future Vol, veh/h	0	98	913	218	0	1489
Conflicting Peds, #/hr	0	0	0	0	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	95	95	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	113	961	229	0	1601

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	595	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	447	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	447	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	447	-
HCM Lane V/C Ratio	-	-	0.252	-
HCM Control Delay (s)	-	-	15.7	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	480129.8
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2402
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	480131.25
Avg Ped Delay (s)	480129.75

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	480129.8
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2402
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	480131.25
Avg Ped Delay (s)	480129.75

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	718	1179	124	1321
v/c Ratio	0.78	0.60	0.65	0.66
Control Delay	26.5	11.2	32.0	12.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.5	11.2	32.0	12.5
Queue Length 50th (ft)	128	143	31	175
Queue Length 95th (ft)	181	245	#134	296
Internal Link Dist (ft)	742	269		1054
Turn Bay Length (ft)			170	
Base Capacity (vph)	1251	2127	207	2161
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.57	0.55	0.60	0.61

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	402	237	975	145	113	1202
Future Volume (vph)	402	237	975	145	113	1202
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		6.0		6.0	6.0
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.94		0.98		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3274		3460		1770	3539
Flt Permitted	0.97		1.00		0.18	1.00
Satd. Flow (perm)	3274		3460		340	3539
Peak-hour factor, PHF	0.89	0.89	0.95	0.95	0.91	0.91
Adj. Flow (vph)	452	266	1026	153	124	1321
RTOR Reduction (vph)	62	0	15	0	0	0
Lane Group Flow (vph)	656	0	1164	0	124	1321
Confl. Peds. (#/hr)	1	6				
Confl. Bikes (#/hr)				3		
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	17.6		37.9		37.9	37.9
Effective Green, g (s)	17.6		37.9		37.9	37.9
Actuated g/C Ratio	0.26		0.57		0.57	0.57
Clearance Time (s)	5.0		6.0		6.0	6.0
Vehicle Extension (s)	2.0		5.5		5.5	5.5
Lane Grp Cap (vph)	866		1971		193	2016
v/s Ratio Prot	c0.20		0.34			c0.37
v/s Ratio Perm					0.36	
v/c Ratio	0.76		0.59		0.64	0.66
Uniform Delay, d1	22.5		9.3		9.7	9.8
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	3.4		0.8		10.5	1.1
Delay (s)	25.9		10.1		20.2	11.0
Level of Service	C		B		C	B
Approach Delay (s)	25.9		10.1			11.8
Approach LOS	C		B			B

Intersection Summary			
HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	66.5	Sum of lost time (s)	11.0
Intersection Capacity Utilization	71.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	0	0	5
Ped. Right-Left Flow Rate (p/h)	0	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	5368.8	32365.9	4623.2
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	17086.7	2191.0
Crosswalk Circulation Code	-	A	A
Pedestrian Delay (s/p)	29.9	27.3	29.9
Pedestrian Compliance Code	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.30	3.27	3.01
Pedestrian Crosswalk LOS	B	C	C

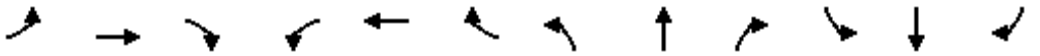
Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	7	7
Total Flow Rate (veh/h)	718	1179	1445
Effct. Green for Bike (s)	17.6	37.9	37.9
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	469	1011	1011
Bicycle Delay (s/bike)	22.0	9.2	9.2
Bicycle Compliance	Fair	Good	Good
Bicycle LOS Score	1.57	2.16	2.67
Bicycle LOS	B	B	C

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	45	29	441	436	693	26	797	575	457	909
v/c Ratio	0.31	0.14	0.81	0.79	0.83	0.28	0.80	0.54	1.29	0.56
Control Delay	65.8	1.4	54.2	53.2	22.5	74.6	52.4	5.7	194.0	31.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.8	1.4	54.2	53.2	22.5	74.6	52.4	5.7	194.0	31.7
Queue Length 50th (ft)	40	0	366	360	186	23	343	62	~548	324
Queue Length 95th (ft)	56	0	529	521	310	61	#533	120	#870	493
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		100	165	
Base Capacity (vph)	245	291	671	674	911	155	1130	1158	353	1618
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.10	0.66	0.65	0.76	0.17	0.71	0.50	1.29	0.56

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	15	18	695	24	568	25	757	546	398	743	48
Future Volume (veh/h)	13	15	18	695	24	568	25	757	546	398	743	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	24	29	869	0	0	26	797	575	457	854	55
Peak Hour Factor	0.63	0.63	0.63	0.82	0.82	0.82	0.95	0.95	0.95	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	46	70	970	0		43	1148	931	379	1731	111
Arrive On Green	0.05	0.05	0.05	0.27	0.00	0.00	0.02	0.32	0.32	0.21	0.51	0.51
Sat Flow, veh/h	853	975	1499	3563	0	1585	1781	3554	1546	1781	3382	218
Grp Volume(v), veh/h	45	0	29	869	0	0	26	797	575	457	449	460
Grp Sat Flow(s),veh/h/ln	1828	0	1499	1781	0	1585	1781	1777	1546	1781	1777	1823
Q Serve(g_s), s	2.8	0.0	2.2	27.6	0.0	0.0	1.7	23.0	28.1	25.0	19.4	19.4
Cycle Q Clear(g_c), s	2.8	0.0	2.2	27.6	0.0	0.0	1.7	23.0	28.1	25.0	19.4	19.4
Prop In Lane	0.47		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	86	0	70	970	0		43	1148	931	379	909	933
V/C Ratio(X)	0.53	0.00	0.41	0.90	0.00		0.60	0.69	0.62	1.20	0.49	0.49
Avail Cap(c_a), veh/h	234	0	192	1518	0		167	1211	958	379	909	933
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.7	0.0	54.4	41.1	0.0	0.0	56.7	34.7	15.3	46.2	18.7	18.7
Incr Delay (d2), s/veh	1.9	0.0	1.4	3.2	0.0	0.0	4.9	2.2	1.8	114.4	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	0.0	1.5	17.7	0.0	0.0	1.5	15.2	24.1	33.7	12.3	12.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.5	0.0	55.8	44.3	0.0	0.0	61.5	36.9	17.1	160.6	19.6	19.6
LnGrp LOS	E	A	E	D	A		E	D	B	F	B	B
Approach Vol, veh/h		74			869	A		1398			1366	
Approach Delay, s/veh		56.2			44.3			29.2			66.8	
Approach LOS		E			D			C			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	28.5	42.4		10.0	6.4	64.6		36.4				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	25.0	40.0		15.0	11.0	40.0		50.0				
Max Q Clear Time (g_c+I1), s	27.0	30.1		4.8	3.7	21.4		29.6				
Green Ext Time (p_c), s	0.0	7.8		0.1	0.0	9.5		2.4				

Intersection Summary		
HCM 6th Ctrl Delay	47.1	
HCM 6th LOS	D	

Notes

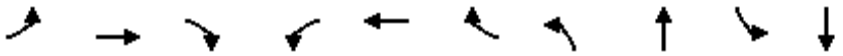
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	3	6	1
Ped. Right-Left Flow Rate (p/h)	1	6	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	1	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	58924.0	53567.3	36848.0	117930.1
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2262.6	0.0	1117.9	987.7
Crosswalk Circulation Code	A	F	A	A
Pedestrian Delay (s/p)	65.7	65.7	65.7	65.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.05	3.16	3.64	3.07
Pedestrian Crosswalk LOS	B	C	D	C

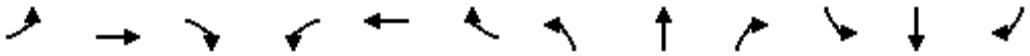
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	8	3	10
Total Flow Rate (veh/h)	74	1570	1398	1366
Effct. Green for Bike (s)	10.3	42.3	36.5	60.0
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	140	576	497	816
Bicycle Delay (s/bike)	63.6	37.4	41.6	25.9
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.72	5.16	2.41	2.36
Bicycle LOS	C	E	B	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	258	77	500	166	261	178	417	1041	113	912
v/c Ratio	0.85	0.18	0.81	0.71	0.76	0.41	0.82	0.81	0.62	0.81
Control Delay	77.5	43.3	28.0	71.6	64.2	9.2	66.9	42.2	71.2	45.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.5	43.3	28.0	71.6	64.2	9.2	66.9	42.2	71.2	45.0
Queue Length 50th (ft)	206	51	141	130	205	0	168	383	89	346
Queue Length 95th (ft)	#437	105	322	233	322	62	#292	570	166	477
Internal Link Dist (ft)		1706			363			1325		863
Turn Bay Length (ft)	250			105		410	300		210	
Base Capacity (vph)	304	517	670	304	502	551	561	1446	289	1413
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.15	0.75	0.55	0.52	0.32	0.74	0.72	0.39	0.65

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	69	450	149	235	160	384	877	81	107	706	161
Future Volume (veh/h)	232	69	450	149	235	160	384	877	81	107	706	161
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	258	77	500	166	261	178	417	953	88	113	743	169
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	509	431	195	416	352	478	1218	112	139	891	203
Arrive On Green	0.16	0.27	0.27	0.11	0.22	0.22	0.14	0.37	0.37	0.08	0.31	0.31
Sat Flow, veh/h	1781	1870	1582	1781	1870	1581	3456	3277	303	1781	2857	650
Grp Volume(v), veh/h	258	77	500	166	261	178	417	517	524	113	462	450
Grp Sat Flow(s),veh/h/ln	1781	1870	1582	1781	1870	1581	1728	1777	1803	1781	1777	1730
Q Serve(g_s), s	17.8	3.9	34.0	11.4	15.7	12.3	14.8	32.2	32.2	7.8	30.2	30.2
Cycle Q Clear(g_c), s	17.8	3.9	34.0	11.4	15.7	12.3	14.8	32.2	32.2	7.8	30.2	30.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.38
Lane Grp Cap(c), veh/h	284	509	431	195	416	352	478	660	670	139	554	539
V/C Ratio(X)	0.91	0.15	1.16	0.85	0.63	0.51	0.87	0.78	0.78	0.81	0.83	0.83
Avail Cap(c_a), veh/h	300	509	431	300	494	418	554	712	722	285	712	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	34.5	45.4	54.6	43.8	42.5	52.7	34.8	34.8	56.6	40.0	40.0
Incr Delay (d2), s/veh	29.0	0.1	95.3	13.1	1.0	0.4	12.4	5.6	5.5	7.5	7.3	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	15.3	3.2	35.4	9.7	11.7	8.4	11.5	20.7	20.9	6.7	20.0	19.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.6	34.5	140.7	67.7	44.8	42.9	65.1	40.4	40.3	64.1	47.2	47.4
LnGrp LOS	F	C	F	E	D	D	E	D	D	E	D	D
Approach Vol, veh/h		835			605			1458			1025	
Approach Delay, s/veh		112.4			50.5			47.4			49.2	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.8	52.4	17.7	40.0	22.3	44.9	23.9	33.8
Change Period (Y+Rc), s	5.0	6.0	4.0	* 6	5.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	20.0	50.0	21.0	* 34	20.0	50.0	21.0	33.0
Max Q Clear Time (g_c+I1), s	9.8	34.2	13.4	36.0	16.8	32.2	19.8	17.7
Green Ext Time (p_c), s	0.2	7.4	0.3	0.0	0.5	6.7	0.1	1.2

Intersection Summary	
HCM 6th Ctrl Delay	62.2
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

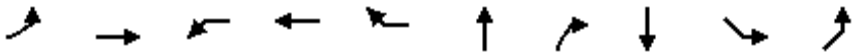
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	90.0	70.0	80.0	70.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	4	6	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	1	0	0	1
Ped. Right-Left Flow Rate (p/h)	2	3	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	17969.0	22422.6	17969.0	22480.7
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3138.7	3099.6	3941.5	7630.3
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	61.9	61.9	61.9	61.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.86	2.49	3.16	3.06
Pedestrian Crosswalk LOS	C	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	15	8
Total Flow Rate (veh/h)	835	605	1458	1025
Effct. Green for Bike (s)	29.0	23.0	46.0	40.4
Cross Street Width (ft)	80.0	80.0	62.0	75.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	400	317	634	557
Bicycle Delay (s/bike)	46.4	51.4	34.1	37.9
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.87	2.50	2.42	2.27
Bicycle LOS	C	B	B	B

Intersection	
Intersection Delay, s/veh	9.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	0
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	951	1245	247	0
Demand Flow Rate, veh/h	982	1293	252	0
Vehicles Circulating, veh/h	0	264	982	1060
Vehicles Exiting, veh/h	1060	970	0	497
Ped Vol Crossing Leg, #/h	5	5	5	5
Ped Cap Adj	0.994	0.995	1.000	1.000
Approach Delay, s/veh	6.0	11.2	9.1	0.0
Approach LOS	A	B	A	-

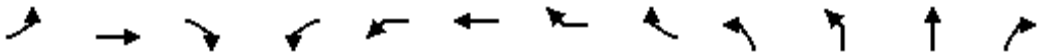
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	R
Assumed Moves	LT	TR	LT	TR	LT	R
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	0.397	0.603
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	462	520	608	685	100	152
Cap Entry Lane, veh/h	1350	1420	1059	1135	547	616
Entry HV Adj Factor	0.967	0.969	0.962	0.963	0.977	0.980
Flow Entry, veh/h	447	504	585	660	98	149
Cap Entry, veh/h	1298	1369	1014	1088	534	604
V/C Ratio	0.344	0.368	0.577	0.606	0.183	0.247
Control Delay, s/veh	5.9	6.0	11.2	11.3	9.2	9.1
LOS	A	A	B	B	A	A
95th %tile Queue, veh	2	2	4	4	1	1



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	28	927	181	1178	559	31	93	238	20	20
v/c Ratio	0.30	0.79	0.86	0.70	0.69	0.09	0.18	0.74	0.14	0.06
Control Delay	52.4	34.2	75.0	26.2	22.4	27.2	0.8	44.6	45.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	34.2	75.0	26.2	22.4	27.2	0.8	44.6	45.1	0.3
Queue Length 50th (ft)	11	166	73	144	80	10	0	88	8	0
Queue Length 95th (ft)	#49	#473	#287	#642	#517	38	0	221	38	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	94	1172	211	1692	807	523	678	484	138	435
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.79	0.86	0.70	0.69	0.06	0.14	0.49	0.14	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	24	802	4	79	93	1119	277	254	8	12	7	79
Future Volume (vph)	24	802	4	79	93	1119	277	254	8	12	7	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00				1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.95				1.00	0.97
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85				1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00	1.00				0.96	1.00
Satd. Flow (prot)	1770	3536			1770	3539	1506				1791	1536
Flt Permitted	0.95	1.00			0.95	1.00	1.00				0.79	1.00
Satd. Flow (perm)	1770	3536			1770	3539	1506				1462	1536
Peak-hour factor, PHF	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.85	0.85	0.85	0.85
Adj. Flow (vph)	28	922	5	83	98	1178	292	267	9	14	8	93
RTOR Reduction (vph)	0	0	0	0	0	0	108	0	0	0	0	73
Lane Group Flow (vph)	28	927	0	0	181	1178	451	0	0	0	31	20
Confl. Peds. (#/hr)			4				1	1	2	2		12
Confl. Bikes (#/hr)			1				14	14				1
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	Perm	NA	Perm
Protected Phases	5	2		1	1	6					8	
Permitted Phases							6		8	8		8
Actuated Green, G (s)	1.3	30.7			9.5	37.9	37.9				18.9	18.9
Effective Green, g (s)	1.3	30.7			9.5	37.9	37.9				18.9	18.9
Actuated g/C Ratio	0.01	0.34			0.11	0.42	0.42				0.21	0.21
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0				3.5	3.5
Lane Grp Cap (vph)	25	1208			187	1493	635				307	323
v/s Ratio Prot	0.02	0.26			c0.10	c0.33						
v/s Ratio Perm							0.30				0.02	0.01
v/c Ratio	1.12	0.77			0.97	0.79	0.71				0.10	0.06
Uniform Delay, d1	44.2	26.4			40.0	22.5	21.4				28.6	28.4
Progression Factor	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Incremental Delay, d2	219.4	3.5			55.6	3.3	4.6				0.2	0.1
Delay (s)	263.6	29.9			95.6	25.8	26.0				28.8	28.4
Level of Service	F	C			F	C	C				C	C
Approach Delay (s)		36.7				32.5					28.5	
Approach LOS		D				C					C	

Intersection Summary			
HCM 2000 Control Delay	35.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	89.8	Sum of lost time (s)	27.0
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		

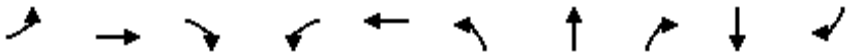
c Critical Lane Group

Movement	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	155	5	25	20	5	5	5	5	5	5	5	5
Future Volume (vph)	155	5	25	20	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0				5.0				5.0		
Lane Util. Factor		1.00				1.00				1.00		
Frpb, ped/bikes		1.00				1.00				1.00		
Flpb, ped/bikes		0.99				1.00				1.00		
Frt		0.97				0.93				0.93		
Flt Protected		0.96				0.98				0.98		
Satd. Flow (prot)		1721				1695				1695		
Flt Permitted		0.76				1.00				0.98		
Satd. Flow (perm)		1354				1737				1695		
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	180	6	29	23	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	0	238	0	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)	12		2	2								
Confl. Bikes (#/hr)												
Turn Type	Perm	NA			Perm	Prot			Perm	Prot		
Protected Phases		4				7				3		
Permitted Phases	4				7				3			
Actuated Green, G (s)		18.9				1.9				2.8		
Effective Green, g (s)		18.9				1.9				2.8		
Actuated g/C Ratio		0.21				0.02				0.03		
Clearance Time (s)		5.0				5.0				5.0		
Vehicle Extension (s)		3.5				2.0				1.5		
Lane Grp Cap (vph)		284				36				52		
v/s Ratio Prot												
v/s Ratio Perm		c0.18				c0.01				0.00		
v/c Ratio		0.84				0.56				0.01		
Uniform Delay, d1		34.0				43.5				42.2		
Progression Factor		1.00				1.00				1.00		
Incremental Delay, d2		19.4				10.1				0.0		
Delay (s)		53.4				53.6				42.2		
Level of Service		D				D				D		
Approach Delay (s)		53.4				53.6				42.2		
Approach LOS		D				D				D		

Intersection Summary

Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29673.7	11556.4	0.0	72900.0	24282.5
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2869.7	5032.2	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	42.1	42.1	42.1	42.1	42.1	42.1
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.95	3.45	2.02	1.98	1.86	1.78
Pedestrian Crosswalk LOS	C	C	B	B	B	B

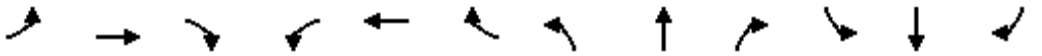
Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	955	1918	124	238	20	20
Effct. Green for Bike (s)	26.3	37.9	18.9	18.9	6.3	7.2
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	501	722	360	360	120	137
Bicycle Delay (s/bike)	29.6	21.6	35.6	35.4	46.4	45.5
Bicycle Compliance	Fair	Fair	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.85	2.24	2.86	2.32	2.62	2.20
Bicycle LOS	C	B	C	B	C	B



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	36	789	470	433	1083	382	390	558	52	29
v/c Ratio	0.37	0.87	0.88	0.85	0.54	0.81	0.83	0.60	0.28	0.09
Control Delay	62.4	49.7	42.1	61.3	28.5	51.5	52.8	7.3	46.2	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	49.7	42.1	61.3	28.5	51.5	52.8	7.3	46.2	0.5
Queue Length 50th (ft)	23	262	187	144	215	241	247	35	33	0
Queue Length 95th (ft)	66	#500	#478	#287	333	#506	#520	148	57	0
Internal Link Dist (ft)		217			575		1379		108	
Turn Bay Length (ft)	145		90	350		150				50
Base Capacity (vph)	104	909	536	509	2015	498	500	931	528	591
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.87	0.88	0.85	0.54	0.77	0.78	0.60	0.10	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	710	423	377	905	37	673	6	491	36	3	22
Future Volume (veh/h)	32	710	423	377	905	37	673	6	491	36	3	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	789	470	433	1040	43	770	0	558	48	4	29
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.88	0.88	0.88	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	931	406	498	1912	79	1077	0	701	82	7	77
Arrive On Green	0.03	0.26	0.26	0.14	0.38	0.38	0.30	0.00	0.30	0.05	0.05	0.05
Sat Flow, veh/h	1781	3554	1547	3456	5020	207	3563	0	1563	1650	138	1550
Grp Volume(v), veh/h	36	789	470	433	705	378	770	0	558	52	0	29
Grp Sat Flow(s),veh/h/ln	1781	1777	1547	1728	1702	1823	1781	0	1563	1788	0	1550
Q Serve(g_s), s	2.0	20.9	26.0	12.2	16.0	16.1	19.1	0.0	30.0	2.8	0.0	1.8
Cycle Q Clear(g_c), s	2.0	20.9	26.0	12.2	16.0	16.1	19.1	0.0	30.0	2.8	0.0	1.8
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	45	931	406	498	1297	694	1077	0	701	88	0	77
V/C Ratio(X)	0.80	0.85	1.16	0.87	0.54	0.54	0.71	0.00	0.80	0.59	0.00	0.38
Avail Cap(c_a), veh/h	108	931	406	522	1297	694	1077	0	701	541	0	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.1	34.7	36.6	41.5	24.0	24.0	30.8	0.0	23.6	46.2	0.0	45.7
Incr Delay (d2), s/veh	15.5	9.4	95.7	13.6	1.6	3.1	2.1	0.0	6.2	3.8	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	14.8	29.7	9.9	10.5	11.5	12.8	0.0	17.1	2.4	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	44.1	132.4	55.1	25.6	27.0	32.9	0.0	29.8	49.9	0.0	47.5
LnGrp LOS	E	D	F	E	C	C	C	A	C	D	A	D
Approach Vol, veh/h		1295			1516			1328			81	
Approach Delay, s/veh		76.7			34.4			31.6			49.1	
Approach LOS		E			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.3	32.0		10.9	8.5	43.8		36.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	26.0		30.0	6.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	14.2	28.0		4.8	4.0	18.1		32.0				
Green Ext Time (p_c), s	0.1	0.0		0.3	0.0	12.9		0.0				

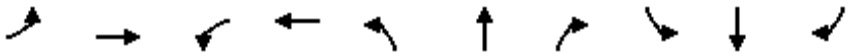
Intersection Summary			
HCM 6th Ctrl Delay		46.8	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	105.0	120.0	90.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	8	5	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	1	0	1	1
Ped. Right-Left Flow Rate (p/h)	0	0	1	2
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	40	25
Right Corner Area per Ped (sq.ft)	29978.3	29978.3	44967.5	22451.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	11702.5	0.0	5433.8	3401.6
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	52.0	52.0	52.0	52.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.29	3.24	2.95	2.01
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	10	15	4	3
Total Flow Rate (veh/h)	1295	1516	1330	81
Effct. Green for Bike (s)	26.5	41.1	28.7	10.8
Cross Street Width (ft)	80.0	55.0	97.0	100.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	424	658	459	173
Bicycle Delay (s/bike)	39.0	28.4	37.2	52.2
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.35	1.95	3.95	1.94
Bicycle LOS	B	B	D	B

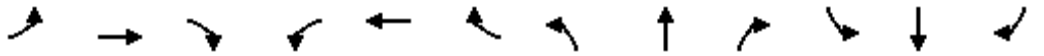


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	1123	180	824	338	343	279	13	22	25
v/c Ratio	0.32	0.59	0.74	0.32	0.82	0.82	0.34	0.09	0.16	0.10
Control Delay	51.6	29.0	51.2	10.6	51.0	51.5	3.0	41.1	42.9	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	29.0	51.2	10.6	51.0	51.5	3.0	41.1	42.9	0.7
Queue Length 50th (ft)	24	227	89	161	205	208	0	8	14	0
Queue Length 95th (ft)	59	#306	m#180	99	#330	#336	37	20	28	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	123	1906	260	2537	444	448	830	268	262	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.59	0.69	0.32	0.76	0.77	0.34	0.05	0.08	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	988	90	173	772	19	559	27	240	10	15	18
Future Volume (veh/h)	37	988	90	173	772	19	559	27	240	10	15	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	39	1029	94	180	804	20	672	0	279	14	21	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.86	0.86	0.86	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	49	2095	191	207	2752	68	791	0	535	67	66	58
Arrive On Green	0.03	0.44	0.44	0.25	1.00	1.00	0.24	0.00	0.24	0.04	0.04	0.04
Sat Flow, veh/h	1781	4748	433	1668	5120	127	3337	0	1479	1781	1752	1549
Grp Volume(v), veh/h	39	737	386	180	534	290	672	0	279	14	21	25
Grp Sat Flow(s),veh/h/ln	1781	1702	1776	1668	1702	1843	1668	0	1479	1781	1752	1549
Q Serve(g_s), s	2.2	15.4	15.5	10.3	0.0	0.0	19.2	0.0	14.9	0.8	1.2	1.6
Cycle Q Clear(g_c), s	2.2	15.4	15.5	10.3	0.0	0.0	19.2	0.0	14.9	0.8	1.2	1.6
Prop In Lane	1.00		0.24	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	1502	784	207	1830	991	791	0	535	67	66	58
V/C Ratio(X)	0.79	0.49	0.49	0.87	0.29	0.29	0.85	0.00	0.52	0.21	0.32	0.43
Avail Cap(c_a), veh/h	107	1502	784	250	1830	991	901	0	584	285	280	248
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.69	0.69	0.69	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	19.9	19.9	36.8	0.0	0.0	36.5	0.0	25.2	46.7	46.9	47.1
Incr Delay (d2), s/veh	19.3	0.9	1.7	17.3	0.3	0.5	7.0	0.0	0.8	1.5	2.7	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	9.6	10.2	7.5	0.1	0.3	13.3	0.0	9.0	0.7	1.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	20.8	21.7	54.1	0.3	0.5	43.5	0.0	25.9	48.2	49.6	51.9
LnGrp LOS	E	C	C	D	A	A	D	A	C	D	D	D
Approach Vol, veh/h		1162			1004			951			60	
Approach Delay, s/veh		22.7			10.0			38.3			50.2	
Approach LOS		C			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.4	48.1		7.8	6.8	57.8		27.7				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	15.0	26.0		16.0	6.0	35.0		27.0				
Max Q Clear Time (g_c+I1), s	12.3	17.5		3.6	4.2	2.0		21.2				
Green Ext Time (p_c), s	0.2	4.6		0.1	0.0	6.2		2.5				

Intersection Summary			
HCM 6th Ctrl Delay		23.9	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

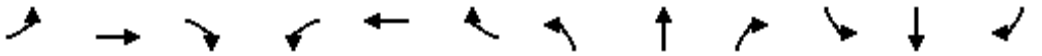
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	88.4	95.5	49.4	54.8
Crosswalk Width (ft)	10.0	10.0	10.0	10.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	11.0	11.0	10.0	15.0
Right Corner Size B (ft)	10.0	11.0	11.0	14.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	110.00	121.00	110.00	210.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	0
Ped. Right-Left Flow Rate (p/h)	1	0	3	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	3
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	12355.6	0.0	19768.9	31482.7
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	3316.1	0.0	1593.1	0.0
Crosswalk Circulation Code	A	-	A	-
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.04	2.99	2.80	2.19
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	8	9	1	5
Total Flow Rate (veh/h)	1162	1004	960	60
Effct. Green for Bike (s)	38.2	50.1	26.6	8.4
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	764	1002	532	168
Bicycle Delay (s/bike)	19.2	12.5	27.0	42.1
Bicycle Compliance	Fair	Fair	Fair	Poor
Bicycle LOS Score	1.91	1.82	3.48	2.97
Bicycle LOS	B	B	C	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	590	737	1219	131	152
v/c Ratio	0.98	0.28	0.69	0.49	0.37
Control Delay	81.8	15.2	21.7	41.8	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	81.8	15.2	21.7	41.8	3.9
Queue Length 50th (ft)	183	196	258	80	0
Queue Length 95th (ft)	#316	300	#560	106	19
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	604	2673	1774	557	626
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.98	0.28	0.69	0.24	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	549	685	0	0	855	267	124	0	144	0	0	0
Future Volume (veh/h)	549	685	0	0	855	267	124	0	144	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	590	737	0	0	929	290	131	0	152			
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.95	0.95	0.95			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1269	2780	0	0	929	289	230	0	201			
Arrive On Green	0.78	1.00	0.00	0.00	0.35	0.35	0.14	0.00	0.14			
Sat Flow, veh/h	3237	3647	0	0	2747	825	1668	0	1461			
Grp Volume(v), veh/h	590	737	0	0	621	598	131	0	152			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1702	1668	0	1461			
Q Serve(g_s), s	6.2	0.0	0.0	0.0	34.9	35.0	7.3	0.0	10.0			
Cycle Q Clear(g_c), s	6.2	0.0	0.0	0.0	34.9	35.0	7.3	0.0	10.0			
Prop In Lane	1.00		0.00	0.00		0.48	1.00		1.00			
Lane Grp Cap(c), veh/h	1269	2780	0	0	622	596	230	0	201			
V/C Ratio(X)	0.46	0.27	0.00	0.00	1.00	1.00	0.57	0.00	0.75			
Avail Cap(c_a), veh/h	1269	2780	0	0	622	596	567	0	497			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.83	0.83	0.00	0.00	0.75	0.75	1.00	0.00	1.00			
Uniform Delay (d), s/veh	7.2	0.0	0.0	0.0	32.5	32.5	40.3	0.0	41.5			
Incr Delay (d2), s/veh	0.2	0.2	0.0	0.0	30.8	32.9	2.2	0.0	5.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.8	0.1	0.0	0.0	25.9	25.4	5.6	0.0	7.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.4	0.2	0.0	0.0	63.3	65.4	42.5	0.0	47.1			
LnGrp LOS	A	A	A	A	E	F	D	A	D			
Approach Vol, veh/h		1327			1219			283				
Approach Delay, s/veh		3.4			64.4			45.0				
Approach LOS		A			E			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		82.2			43.2	39.0		17.8				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			19.0	35.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			8.2	37.0		12.0				
Green Ext Time (p_c), s		6.2			2.2	0.0		1.5				
Intersection Summary												
HCM 6th Ctrl Delay			33.8									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	73.5	41.5	30.4
Crosswalk Width (ft)	10.0	11.0	10.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	8.0	9.0	19.0	0.1
Right Corner Size B (ft)	9.0	10.0	19.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	72.00	90.00	361.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	2	0
Ped. Right-Left Flow Rate (p/h)	0	1	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21565.5	40474.1	81212.1	-53.5
Right Corner Quality of Service	A	A	A	F
Ped. Circulation Area (sq.ft)	0.0	7459.0	2974.4	0.3
Crosswalk Circulation Code	-	A	A	F
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.92	2.76	1.98	2.16
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	11	1	1
Total Flow Rate (veh/h)	1327	1219	283	0
Effct. Green for Bike (s)	75.6	52.6	16.4	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1512	1052	328	0
Bicycle Delay (s/bike)	3.0	11.3	35.0	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.21	2.04	2.19	0.00
Bicycle LOS	B	B	B	

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	388	232	1258	873
Demand Flow Rate, veh/h	395	236	1283	890
Vehicles Circulating, veh/h	764	1426	190	366
Vehicles Exiting, veh/h	492	47	969	1296
Ped Vol Crossing Leg, #/h	5	5	0	0
Ped Cap Adj	0.999	1.000	1.000	1.000
Approach Delay, s/veh	13.1	21.9	9.6	8.8
Approach LOS	B	C	A	A

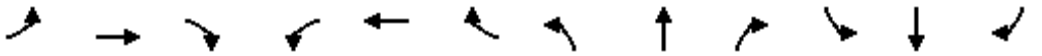
Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	395	236	603	680	418	472
Cap Entry Lane, veh/h	742	423	1133	1208	964	1040
Entry HV Adj Factor	0.982	0.981	0.980	0.980	0.981	0.980
Flow Entry, veh/h	388	232	591	667	410	462
Cap Entry, veh/h	728	414	1111	1185	946	1019
V/C Ratio	0.533	0.559	0.532	0.563	0.434	0.454
Control Delay, s/veh	13.1	21.9	9.5	9.7	8.9	8.7
LOS	B	C	A	A	A	A
95th %tile Queue, veh	3	3	3	4	2	2

Lane Group	EBT	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	4	258	128	348	625	430	678
v/c Ratio	0.01	0.62	0.08	0.62	0.69	1.17	0.63
Control Delay	0.0	34.5	0.1	28.8	6.7	135.7	15.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	34.5	0.1	28.8	6.7	135.7	15.3
Queue Length 50th (ft)	0	101	0	128	0	~229	171
Queue Length 95th (ft)	0	211	0	243	30	#596	429
Internal Link Dist (ft)	160	615		469			438
Turn Bay Length (ft)			180		370	490	
Base Capacity (vph)	733	833	1583	1389	1306	366	1621
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.31	0.08	0.25	0.48	1.17	0.42

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	210	2	105	0	278	500	370	582	1
Future Volume (veh/h)	0	0	1	210	2	105	0	278	500	370	582	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	4	256	2	0	0	348	0	430	677	1
Peak Hour Factor	0.25	0.25	0.25	0.82	0.82	0.82	0.80	0.80	0.80	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	7	332	3		3	442		413	1018	2
Arrive On Green	0.00	0.00	0.00	0.19	0.19	0.00	0.00	0.24	0.00	0.23	0.55	0.55
Sat Flow, veh/h	0	0	1585	1768	14	1585	1781	1870	1585	1781	1867	3
Grp Volume(v), veh/h	0	0	4	258	0	0	0	348	0	430	0	678
Grp Sat Flow(s),veh/h/ln	0	0	1585	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.2	8.9	0.0	0.0	0.0	11.3	0.0	15.0	0.0	16.8
Cycle Q Clear(g_c), s	0.0	0.0	0.2	8.9	0.0	0.0	0.0	11.3	0.0	15.0	0.0	16.8
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	7	335	0		3	442		413	0	1019
V/C Ratio(X)	0.00	0.00	0.59	0.77	0.00		0.00	0.79		1.04	0.00	0.67
Avail Cap(c_a), veh/h	0	0	661	936	0		110	1560		413	0	1559
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	32.2	25.0	0.0	0.0	0.0	23.2	0.0	24.9	0.0	10.5
Incr Delay (d2), s/veh	0.0	0.0	61.4	3.8	0.0	0.0	0.0	3.2	0.0	55.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.3	6.6	0.0	0.0	0.0	8.2	0.0	17.8	0.0	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	93.6	28.7	0.0	0.0	0.0	26.3	0.0	80.5	0.0	11.3
LnGrp LOS	A	A	F	C	A		A	C		F	A	B
Approach Vol, veh/h		4			258	A		348	A		1108	
Approach Delay, s/veh		93.6			28.7			26.3			38.1	
Approach LOS		F			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	21.3		5.3	0.0	41.3		18.2				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	54.0		27.0	4.0	54.0		34.0				
Max Q Clear Time (g_c+I1), s	17.0	13.3		2.2	0.0	18.8		10.9				
Green Ext Time (p_c), s	0.0	2.0		0.0	0.0	4.7		1.4				

Intersection Summary			
HCM 6th Ctrl Delay		34.5	
HCM 6th LOS		C	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	76.0	67.3	67.3	76.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.50	2.77	2.83
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	14	8
Total Flow Rate (veh/h)	4	386	973	1108
Effct. Green for Bike (s)	5.8	17.9	22.9	43.8
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	76	236	301	576
Bicycle Delay (s/bike)	70.3	59.2	55.2	38.7
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.71	3.34	2.95	2.74
Bicycle LOS	C	C	C	C

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	158	55	576	975	7
Future Vol, veh/h	20	158	55	576	975	7
Conflicting Peds, #/hr	1	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	80	80	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	178	69	720	1108	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1613	560	1118	0	-	0
Stage 1	1114	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	95	472	620	-	-	-
Stage 1	276	-	-	-	-	-
Stage 2	575	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	84	471	619	-	-	-
Mov Cap-2 Maneuver	84	-	-	-	-	-
Stage 1	245	-	-	-	-	-
Stage 2	574	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.3	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	619	-	84	471	-	-
HCM Lane V/C Ratio	0.111	-	0.268	0.377	-	-
HCM Control Delay (s)	11.5	-	62.8	17.2	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1	1.7	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	159847.8	
Level of Service	F	

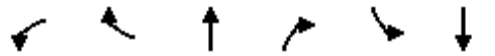
Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	1551	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.94	
Delay for adq Gap	159850.09	
Avg Ped Delay (s)	159847.77	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	273.1	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	975	576
Ped Vol Crossed	1	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.99	0.84
Prob of Blocked Lane	0.88	0.60
Delay for adq Gap	254.59	26.08
Avg Ped Delay (s)	251.12	21.98

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	575	196	734	446	91	1138
v/c Ratio	0.53	0.33	0.50	0.52	0.25	0.60
Control Delay	25.0	5.4	20.6	4.4	11.5	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	5.4	20.6	4.4	11.5	14.5
Queue Length 50th (ft)	130	0	159	0	23	208
Queue Length 95th (ft)	87	0	161	9	45	268
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1346	684	1715	929	461	2424
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.29	0.43	0.48	0.20	0.47

Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	276	94	521	317	84	1047
Future Volume (veh/h)	276	94	521	317	84	1047
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.94	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	575	196	734	446	91	1138
Peak Hour Factor	0.48	0.48	0.71	0.71	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	821	377	1598	667	345	2105
Arrive On Green	0.24	0.24	0.45	0.45	0.05	0.59
Sat Flow, veh/h	3456	1585	3647	1483	1781	3647
Grp Volume(v), veh/h	575	196	734	446	91	1138
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1483	1781	1777
Q Serve(g_s), s	9.8	7.0	9.3	15.3	1.6	12.4
Cycle Q Clear(g_c), s	9.8	7.0	9.3	15.3	1.6	12.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	821	377	1598	667	345	2105
V/C Ratio(X)	0.70	0.52	0.46	0.67	0.26	0.54
Avail Cap(c_a), veh/h	1443	662	1923	803	587	2693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	21.4	12.3	14.0	8.7	7.9
Incr Delay (d2), s/veh	1.1	1.1	0.5	2.9	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.1	10.4	6.0	8.7	0.9	5.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.6	22.6	12.8	16.9	8.9	8.3
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	771		1180			1229
Approach Delay, s/veh	23.4		14.4			8.4
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		44.3		20.4	9.2	35.1
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		49.0		27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		14.4		11.8	3.6	17.3
Green Ext Time (p_c), s		17.1		3.5	0.1	11.8

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	65.0	80.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None	Actuated
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	8.0	0.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	7.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	26	0	4
Ped. Right-Left Flow Rate (p/h)	3	0	81
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	5170.9	20296.0	6893.9
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	434.9	0.0	151.4
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	37.9	45.5	37.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.40	2.87	2.93
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	17	6
Total Flow Rate (veh/h)	771	1180	1229
Effct. Green for Bike (s)	24.7	32.3	41.8
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	543	710	919
Bicycle Delay (s/bike)	24.2	19.1	13.3
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	3.27	2.01	1.55
Bicycle LOS	C	B	B

Intersection	
Int Delay, s/veh	7.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	28	51	789	86	95	1249
Future Vol, veh/h	28	51	789	86	95	1249
Conflicting Peds, #/hr	0	0	0	22	22	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	71	71	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	74	1111	121	113	1487

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2164	638	0	0	1254	0
Stage 1	1194	-	-	-	-	-
Stage 2	970	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	55	359	-	-	295	-
Stage 1	188	-	-	-	-	-
Stage 2	320	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 33	351	-	-	289	-
Mov Cap-2 Maneuver	~ 33	-	-	-	-	-
Stage 1	184	-	-	-	-	-
Stage 2	195	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	159.3	0	1.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	33	351	289	-
HCM Lane V/C Ratio	-	-	1.23	0.211	0.391	-
HCM Control Delay (s)	-	-	$ 416.8	18	25.2	-
HCM Lane LOS	-	-	F	C	D	-
HCM 95th %tile Q(veh)	-	-	4.4	0.8	1.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	1319.1	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	789	1249
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	0.98	1.00
Prob of Blocked Lane	0.72	0.95
Delay for adq Gap	183.93	1142.21
Avg Ped Delay (s)	179.77	1139.37

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	20265682.0
Level of Service	F

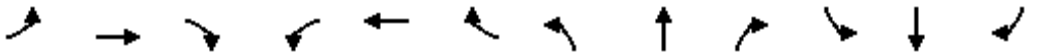
Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2038
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	20265684.00
Avg Ped Delay (s)	20265682.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	60	131	157	10	61	1092	17	1498	24
v/c Ratio	0.16	0.24	0.42	0.02	0.21	0.39	0.05	1.08	0.04
Control Delay	20.3	2.9	25.1	0.0	10.9	12.7	10.4	77.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	2.9	25.1	0.0	10.9	12.7	10.4	77.2	0.1
Queue Length 50th (ft)	21	0	59	0	15	123	4	~517	0
Queue Length 95th (ft)	45	15	69	0	29	171	12	#587	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	466	634	457	622	538	2844	424	1382	684
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.21	0.34	0.02	0.11	0.38	0.04	1.08	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	14	109	78	16	6	48	837	26	14	1243	20
Future Volume (veh/h)	36	14	109	78	16	6	48	837	26	14	1243	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.94	0.98		0.95	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	17	131	130	27	10	61	1059	33	17	1498	24
Peak Hour Factor	0.83	0.83	0.83	0.60	0.60	0.60	0.79	0.79	0.79	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	21	431	95	11	438	208	2368	74	294	1494	638
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.06	0.47	0.47	0.01	0.42	0.42
Sat Flow, veh/h	0	74	1488	0	39	1511	1781	5081	158	1781	3554	1518
Grp Volume(v), veh/h	60	0	131	157	0	10	61	709	383	17	1498	24
Grp Sat Flow(s),veh/h/ln	74	0	1488	39	0	1511	1781	1702	1835	1781	1777	1518
Q Serve(g_s), s	0.0	0.0	4.7	0.0	0.0	0.3	1.3	9.7	9.7	0.4	29.0	0.6
Cycle Q Clear(g_c), s	20.0	0.0	4.7	20.0	0.0	0.3	1.3	9.7	9.7	0.4	29.0	0.6
Prop In Lane	0.72		1.00	0.83		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	431	107	0	438	208	1587	855	294	1494	638
V/C Ratio(X)	0.54	0.00	0.30	1.47	0.00	0.02	0.29	0.45	0.45	0.06	1.00	0.04
Avail Cap(c_a), veh/h	111	0	431	107	0	438	621	1587	855	530	1494	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	19.1	32.4	0.0	17.5	15.8	12.4	12.4	11.5	20.0	11.8
Incr Delay (d2), s/veh	6.6	0.0	0.5	256.2	0.0	0.0	1.7	0.4	0.7	0.1	24.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	0.0	2.9	16.8	0.0	0.2	0.9	5.5	6.1	0.2	21.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	19.6	288.6	0.0	17.5	17.5	12.8	13.1	11.6	44.0	11.8
LnGrp LOS	C	A	B	F	A	B	B	B	B	B	F	B
Approach Vol, veh/h		191			167			1153			1539	
Approach Delay, s/veh		24.2			272.4			13.1			43.1	
Approach LOS		C			F			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	35.0		25.0	5.8	38.2		25.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	29.0		20.0	10.0	29.0		20.0				
Max Q Clear Time (g_c+I1), s	3.3	31.0		22.0	2.4	11.7		22.0				
Green Ext Time (p_c), s	0.3	0.0		0.0	0.0	9.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		43.2	
HCM 6th LOS		D	

Notes

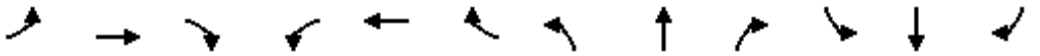
User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	4	12	0	8
Ped. Right-Left Flow Rate (p/h)	4	2	0	37
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73706.7	9989.4	42095.1	11094.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2301.5	1312.9	0.0	278.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	2.00	3.17	3.15
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	191	167	1153	1539
Effct. Green for Bike (s)	21.0	21.0	41.7	29.6
Cross Street Width (ft)	84.5	96.0	36.1	37.9
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	494	494	981	696
Bicycle Delay (s/bike)	24.1	24.1	11.0	18.1
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.17	3.30	2.75	2.34
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	135	240	175	217	204	59	536	215	790	878
v/c Ratio	0.45	0.77	0.28	0.65	0.47	0.40	0.62	0.34	0.74	0.60
Control Delay	47.7	60.2	41.7	42.6	9.7	60.4	48.0	10.5	39.9	29.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	60.2	41.7	42.6	9.7	60.4	48.0	10.5	39.9	29.1
Queue Length 50th (ft)	93	170	58	120	0	42	141	33	271	283
Queue Length 95th (ft)	130	215	88	194	51	88	184	85	363	364
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	409	421	729	378	470	167	893	654	1206	1553
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.57	0.24	0.57	0.43	0.35	0.60	0.33	0.66	0.57

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	147	38	145	72	277	51	466	187	711	736	54
Future Volume (veh/h)	104	147	38	145	72	277	51	466	187	711	736	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	191	49	175	272	210	59	536	215	790	818	60
Peak Hour Factor	0.77	0.77	0.77	0.83	0.83	0.83	0.87	0.87	0.87	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	303	242	62	677	356	292	179	870	560	1028	1228	90
Arrive On Green	0.17	0.17	0.17	0.19	0.19	0.19	0.10	0.17	0.17	0.30	0.37	0.37
Sat Flow, veh/h	1781	1421	365	3563	1870	1535	1781	5106	1516	3456	3343	245
Grp Volume(v), veh/h	135	0	240	175	272	210	59	536	215	790	435	443
Grp Sat Flow(s),veh/h/ln	1781	0	1786	1781	1870	1535	1781	1702	1516	1728	1777	1811
Q Serve(g_s), s	7.1	0.0	13.5	4.4	14.4	13.5	3.2	10.2	11.1	21.8	21.5	21.5
Cycle Q Clear(g_c), s	7.1	0.0	13.5	4.4	14.4	13.5	3.2	10.2	11.1	21.8	21.5	21.5
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	303	0	304	677	356	292	179	870	560	1028	653	665
V/C Ratio(X)	0.45	0.00	0.79	0.26	0.76	0.72	0.33	0.62	0.38	0.77	0.67	0.67
Avail Cap(c_a), veh/h	425	0	426	782	410	337	179	925	576	1253	814	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	0.0	41.7	36.2	40.2	39.8	43.9	40.3	25.0	33.5	27.8	27.8
Incr Delay (d2), s/veh	0.8	0.0	5.6	0.7	12.6	12.1	0.4	3.3	2.0	4.7	5.3	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.7	0.0	10.5	3.4	12.1	9.8	2.5	7.8	9.3	14.3	14.6	14.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	0.0	47.3	36.9	52.8	51.9	44.3	43.5	27.0	38.2	33.1	33.0
LnGrp LOS	D	A	D	D	D	D	D	D	C	D	C	C
Approach Vol, veh/h		375			657			810			1668	
Approach Delay, s/veh		44.6			48.3			39.2			35.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.9	14.5	42.5		24.9	35.2	21.9				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		25.0	9.0	48.0		23.0	38.0	19.0				
Max Q Clear Time (g_c+I1), s		15.5	5.2	23.5		16.4	23.8	13.1				
Green Ext Time (p_c), s		1.1	0.0	15.0		3.5	7.3	4.1				

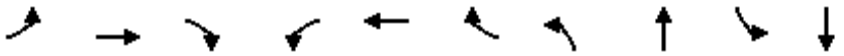
Intersection Summary												
HCM 6th Ctrl Delay			39.7									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	2
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	7	3	5
Ped. Right-Left Flow Rate (p/h)	3	9	2	7
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53583.8	21032.3	2458.1	32730.7
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1647.1	593.9	1233.7	586.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	51.0	51.0	53.8	53.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.15	3.07	3.00	3.43
Pedestrian Crosswalk LOS	B	C	C	C

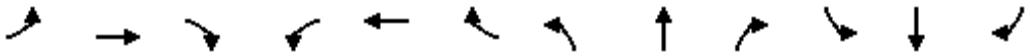
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	5	12	6
Total Flow Rate (veh/h)	375	596	810	1668
Effct. Green for Bike (s)	18.7	20.2	18.7	46.1
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	304	328	304	750
Bicycle Delay (s/bike)	44.3	43.1	44.5	24.1
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.45	3.74	1.71	2.98
Bicycle LOS	C	D	B	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	110	115	88	234	131	111	243	817	96	832
v/c Ratio	0.33	0.43	0.22	0.49	0.32	0.24	0.51	0.40	0.56	0.52
Control Delay	43.0	40.7	1.3	40.0	33.6	2.4	40.3	18.1	58.0	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.0	40.7	1.3	40.0	33.6	2.4	40.3	18.1	58.0	24.7
Queue Length 50th (ft)	26	53	0	55	59	0	57	96	24	114
Queue Length 95th (ft)	64	115	0	85	87	0	123	171	#90	227
Internal Link Dist (ft)		461			455			697		1255
Turn Bay Length (ft)	240		240	300		200	300		200	
Base Capacity (vph)	428	284	415	1456	790	751	728	3184	171	2359
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.40	0.21	0.16	0.17	0.15	0.33	0.26	0.56	0.35

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	93	71	145	81	69	204	609	77	91	660	130
Future Volume (veh/h)	89	93	71	145	81	69	204	609	77	91	660	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	115	88	234	131	111	243	725	92	96	695	137
Peak Hour Factor	0.81	0.81	0.81	0.62	0.62	0.62	0.84	0.84	0.84	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	248	206	382	337	281	368	1816	228	171	1450	282
Arrive On Green	0.06	0.13	0.13	0.11	0.18	0.18	0.11	0.40	0.40	0.05	0.34	0.34
Sat Flow, veh/h	3456	1870	1549	3456	1870	1559	3456	4581	576	3456	4271	830
Grp Volume(v), veh/h	110	115	88	234	131	111	243	537	280	96	552	280
Grp Sat Flow(s),veh/h/ln	1728	1870	1549	1728	1870	1559	1728	1702	1754	1728	1702	1698
Q Serve(g_s), s	2.1	3.8	3.5	4.4	4.2	4.2	4.6	7.6	7.8	1.8	8.6	8.8
Cycle Q Clear(g_c), s	2.1	3.8	3.5	4.4	4.2	4.2	4.6	7.6	7.8	1.8	8.6	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.49
Lane Grp Cap(c), veh/h	218	248	206	382	337	281	368	1350	695	171	1156	576
V/C Ratio(X)	0.51	0.46	0.43	0.61	0.39	0.39	0.66	0.40	0.40	0.56	0.48	0.49
Avail Cap(c_a), veh/h	511	277	229	1739	941	784	869	2569	1323	205	1914	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	27.1	26.9	28.7	24.4	24.4	29.0	14.6	14.6	31.4	17.6	17.7
Incr Delay (d2), s/veh	1.8	1.3	1.4	1.6	0.7	0.9	2.0	0.6	1.1	2.9	0.9	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	3.2	2.4	3.3	3.3	2.9	3.3	4.6	5.0	1.4	5.5	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	28.4	28.4	30.3	25.1	25.3	31.1	15.2	15.7	34.3	18.5	19.5
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		313			476			1060			928	
Approach Delay, s/veh		29.8			27.7			19.0			20.4	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	28.9	12.5	14.0	8.3	32.8	9.3	17.2
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	17.0	38.0	34.0	10.0	4.0	51.0	10.0	34.0
Max Q Clear Time (g_c+I1), s	6.6	10.8	6.4	5.8	3.8	9.8	4.1	6.2
Green Ext Time (p_c), s	0.7	12.0	1.1	0.4	0.0	14.0	0.2	1.3

Intersection Summary	
HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Notes

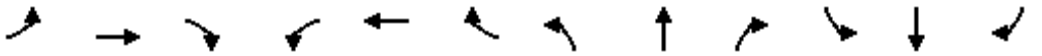
User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	100.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	6	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	30.0	30.0	30.0	30.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	6	3	1	6
Ped. Right-Left Flow Rate (p/h)	1	1	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73709.5	42097.6	117924.5	34657.2
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1035.5	2540.5	0.1	980.9
Crosswalk Circulation Code	A	A	F	A
Pedestrian Delay (s/p)	51.3	51.3	60.0	51.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.67	2.61	3.13	3.10
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	1	0	4
Total Flow Rate (veh/h)	313	476	1060	928
Effct. Green for Bike (s)	12.0	18.4	34.1	26.6
Cross Street Width (ft)	100.0	99.0	68.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	200	307	568	443
Bicycle Delay (s/bike)	48.6	43.0	30.7	36.4
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.61	2.57	1.90	1.70
Bicycle LOS	D	C	B	B

Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	61	71	44	43	58	1234	43	849	50
v/c Ratio	0.28	0.17	0.19	0.11	0.16	0.57	0.19	0.38	0.05
Control Delay	27.9	0.9	26.5	0.6	29.0	10.6	29.9	8.1	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.9	0.9	26.5	0.6	29.0	10.6	29.9	8.1	1.5
Queue Length 50th (ft)	19	0	14	0	9	160	14	90	0
Queue Length 95th (ft)	57	0	34	0	29	211	47	143	9
Internal Link Dist (ft)				233		1200		376	
Turn Bay Length (ft)	100	100			150		100		100
Base Capacity (vph)	979	1194	1014	1180	357	2662	224	2745	1243
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.06	0.04	0.04	0.16	0.46	0.19	0.31	0.04

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	0	65	31	0	30	53	911	101	40	798	46
Future Volume (veh/h)	56	0	65	31	0	30	53	911	101	40	798	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	0	71	44	0	43	58	1111	123	43	849	50
Peak Hour Factor	0.92	0.92	0.92	0.70	0.92	0.70	0.92	0.82	0.82	0.94	0.94	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	221	187	307	0	187	155	1656	183	97	1866	824
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.04	0.52	0.52	0.05	0.52	0.52
Sat Flow, veh/h	1364	1870	1585	1329	0	1585	3456	3214	355	1781	3554	1570
Grp Volume(v), veh/h	61	0	71	44	0	43	58	613	621	43	849	50
Grp Sat Flow(s),veh/h/ln	1364	1870	1585	1329	0	1585	1728	1777	1793	1781	1777	1570
Q Serve(g_s), s	2.0	0.0	2.0	1.5	0.0	1.2	0.8	12.3	12.3	1.1	7.2	0.8
Cycle Q Clear(g_c), s	3.2	0.0	2.0	1.5	0.0	1.2	0.8	12.3	12.3	1.1	7.2	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	277	221	187	307	0	187	155	916	924	97	1866	824
V/C Ratio(X)	0.22	0.00	0.38	0.14	0.00	0.23	0.37	0.67	0.67	0.44	0.46	0.06
Avail Cap(c_a), veh/h	1112	1366	1157	1118	0	1154	359	1438	1451	226	2957	1306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	19.6	19.3	0.0	19.2	22.3	8.6	8.6	22.0	7.1	5.6
Incr Delay (d2), s/veh	0.4	0.0	1.3	0.2	0.0	0.6	1.5	0.9	0.9	3.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	0.0	1.3	0.8	0.0	0.8	0.5	5.3	5.4	0.9	2.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.1	0.0	20.8	19.5	0.0	19.8	23.8	9.5	9.5	25.2	7.3	5.6
LnGrp LOS	C	A	C	B	A	B	C	A	A	C	A	A
Approach Vol, veh/h		132			87			1292			942	
Approach Delay, s/veh		20.9			19.7			10.1			8.0	
Approach LOS		C			B			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	30.6		10.4	6.7	31.0		10.4				
Change Period (Y+Rc), s	4.5	5.8		* 4.7	4.5	5.8		* 4.7				
Max Green Setting (Gmax), s	6.1	38.9		* 35	5.0	40.0		* 35				
Max Q Clear Time (g_c+I1), s	3.1	14.3		5.2	2.8	9.2		3.5				
Green Ext Time (p_c), s	0.0	8.8		0.5	0.0	6.6		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		10.2	
HCM 6th LOS		B	

Notes

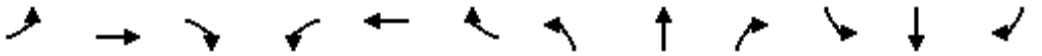
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.2	36.0	72.9	83.6
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	47.5	47.5	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.20	2.02	3.01	2.99
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	132	87	1292	942
Effct. Green for Bike (s)	8.4	8.5	32.6	33.1
Cross Street Width (ft)	72.9	83.6	36.0	50.2
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	177	179	686	697
Bicycle Delay (s/bike)	39.5	39.4	20.5	20.2
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.89	2.98	3.18	3.10
Bicycle LOS	C	C	C	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	9	91	68	76	53	1180	78	43	771	35
v/c Ratio	0.23	0.04	0.32	0.38	0.29	0.10	0.47	0.07	0.12	0.31	0.03
Control Delay	36.0	29.7	9.2	40.6	11.8	3.4	8.5	1.4	6.0	9.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
Total Delay	36.0	29.7	9.2	40.6	11.8	3.4	8.7	1.4	6.0	9.6	0.2
Queue Length 50th (ft)	23	5	0	40	5	3	51	0	4	83	0
Queue Length 95th (ft)	28	10	13	53	26	12	405	20	26	232	2
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	443	627	594	471	582	593	2532	1129	422	2474	1113
Starvation Cap Reductn	0	0	0	0	0	0	477	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.01	0.15	0.14	0.13	0.09	0.57	0.07	0.10	0.31	0.03

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	6	60	54	6	54	44	979	65	42	748	34
Future Volume (veh/h)	26	6	60	54	6	54	44	979	65	42	748	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	9	0	68	8	68	53	1180	78	43	771	35
Peak Hour Factor	0.66	0.66	0.66	0.80	0.80	0.80	0.83	0.83	0.83	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	187		210	17	144	556	2473	1079	445	2459	1081
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.08	1.00	1.00	0.04	0.69	0.69
Sat Flow, veh/h	1321	1870	1585	1402	169	1437	1781	3554	1551	1781	3554	1562
Grp Volume(v), veh/h	39	9	0	68	0	76	53	1180	78	43	771	35
Grp Sat Flow(s),veh/h/ln	1321	1870	1585	1402	0	1607	1781	1777	1551	1781	1777	1562
Q Serve(g_s), s	2.7	0.4	0.0	4.4	0.0	4.2	0.8	0.0	0.0	0.6	8.1	0.7
Cycle Q Clear(g_c), s	7.0	0.4	0.0	4.8	0.0	4.2	0.8	0.0	0.0	0.6	8.1	0.7
Prop In Lane	1.00		1.00	1.00		0.89	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	187		210	0	161	556	2473	1079	445	2459	1081
V/C Ratio(X)	0.26	0.05		0.32	0.00	0.47	0.10	0.48	0.07	0.10	0.31	0.03
Avail Cap(c_a), veh/h	462	630		542	0	541	655	2473	1079	550	2459	1081
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.86	0.86	0.86	0.94	0.94	0.94
Uniform Delay (d), s/veh	43.7	38.7	0.0	40.8	0.0	40.4	3.7	0.0	0.0	3.6	5.8	4.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.3	0.0	0.8	0.0	0.6	0.1	0.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.3	0.0	2.8	0.0	3.1	0.3	0.4	0.1	0.3	4.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.0	38.7	0.0	41.2	0.0	41.2	3.8	0.6	0.1	3.7	6.1	4.7
LnGrp LOS	D	D		D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		48	A		144			1311			849	
Approach Delay, s/veh		43.0			41.2			0.7			5.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	71.7		14.5	8.4	72.1		14.5				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	9.0	38.0		32.0	9.0	38.0		32.0				
Max Q Clear Time (g_c+I1), s	2.8	10.1		6.8	2.6	2.0		9.0				
Green Ext Time (p_c), s	0.0	14.2		0.2	0.0	25.8		0.0				

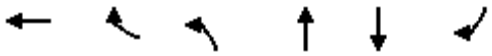
Intersection Summary			
HCM 6th Ctrl Delay		5.9	
HCM 6th LOS		A	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	12600.0	0.0	589765.2
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	10980.0
Crosswalk Circulation Code	-	-	-	A
Pedestrian Delay (s/p)	39.8	39.8	39.8	39.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.49	2.10	3.12	2.99
Pedestrian Crosswalk LOS	B	B	C	C

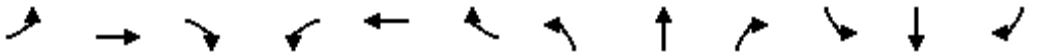
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	4
Total Flow Rate (veh/h)	139	144	1311	849
Effct. Green for Bike (s)	12.0	12.0	68.0	66.4
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	253	253	1432	1398
Bicycle Delay (s/bike)	36.3	36.3	3.8	4.3
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.10	3.17	1.68	1.77
Bicycle LOS	C	C	B	B



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	449	315	44	923	693	410
v/c Ratio	0.77	0.56	0.35	0.47	0.41	0.47
Control Delay	35.6	21.5	55.1	7.6	17.3	5.4
Queue Delay	0.0	0.0	0.0	0.2	0.3	0.3
Total Delay	35.6	21.5	55.1	7.8	17.5	5.7
Queue Length 50th (ft)	235	115	24	62	162	2
Queue Length 95th (ft)	255	142	m38	180	147	64
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	762	716	131	1947	1677	869
Starvation Cap Reductn	0	0	0	0	385	123
Spillback Cap Reductn	0	5	0	306	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.44	0.34	0.56	0.54	0.55

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



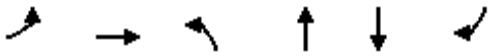
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	360	8	258	37	775	0	0	624	369
Future Volume (veh/h)	0	0	0	360	8	258	37	775	0	0	624	369
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				439	10	315	44	923	0	0	693	410
Peak Hour Factor				0.82	0.82	0.82	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				520	12	473	54	2084	0	0	1819	741
Arrive On Green				0.32	0.32	0.32	0.04	0.78	0.00	0.00	1.00	1.00
Sat Flow, veh/h				1633	37	1485	1668	3647	0	0	3647	1447
Grp Volume(v), veh/h				449	0	315	44	923	0	0	693	410
Grp Sat Flow(s),veh/h/ln				1670	0	1485	1668	1777	0	0	1777	1447
Q Serve(g_s), s				23.8	0.0	17.4	2.5	8.3	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				23.8	0.0	17.4	2.5	8.3	0.0	0.0	0.0	0.0
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				532	0	473	54	2084	0	0	1819	741
V/C Ratio(X)				0.84	0.00	0.67	0.81	0.44	0.00	0.00	0.38	0.55
Avail Cap(c_a), veh/h				774	0	688	123	2084	0	0	1819	741
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	0.96	0.96
Uniform Delay (d), s/veh				30.2	0.0	28.0	45.2	5.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				5.8	0.0	1.6	20.3	0.6	0.0	0.0	0.6	2.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				15.4	0.0	10.3	2.3	4.0	0.0	0.0	0.3	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				35.9	0.0	29.6	65.5	5.8	0.0	0.0	0.6	2.8
LnGrp LOS				D	A	C	E	A	A	A	A	A
Approach Vol, veh/h					764			967			1103	
Approach Delay, s/veh					33.3			8.5			1.4	
Approach LOS					C			A			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	7.1	53.6				60.7		34.3				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	7.0	31.0				42.0		44.0				
Max Q Clear Time (g_c+I1), s	4.5	2.0				10.3		25.8				
Green Ext Time (p_c), s	0.0	7.3				7.1		4.5				

Intersection Summary												
HCM 6th Ctrl Delay			12.4									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.96	2.27	2.93	3.00
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	1	5
Total Flow Rate (veh/h)	0	764	967	1103
Effct. Green for Bike (s)	0.0	33.7	52.3	45.0
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	709	1101	947
Bicycle Delay (s/bike)	0.0	19.8	9.6	13.2
Bicycle Compliance		Fair	Good	Fair
Bicycle LOS Score	0.00	2.80	1.73	1.58
Bicycle LOS		C	B	B

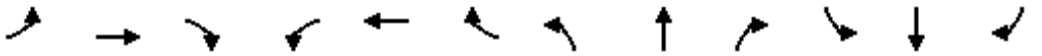


Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	410	380	91	416	1002	103
v/c Ratio	0.90	0.74	0.50	0.20	0.60	0.09
Control Delay	56.4	29.9	48.5	9.1	23.3	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	29.9	48.5	9.1	23.3	0.3
Queue Length 50th (ft)	244	146	53	56	297	0
Queue Length 95th (ft)	#395	246	85	68	320	m0
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	475	529	212	2129	1679	1174
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.72	0.43	0.20	0.60	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	482	0	205	0	0	0	72	329	0	0	902	93
Future Volume (veh/h)	482	0	205	0	0	0	72	329	0	0	902	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	395	223	236	0	0	0	91	416	0	0	1002	103
Peak Hour Factor	0.87	0.87	0.87	0.25	0.25	0.25	0.79	0.79	0.79	0.90	0.90	0.90
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	488	243	258	0	2	0	115	2140	0	0	1764	1153
Arrive On Green	0.29	0.29	0.29	0.00	0.00	0.00	0.07	0.60	0.00	0.00	0.50	0.50
Sat Flow, veh/h	1668	832	880	0	1870	0	1668	3647	0	0	3647	1448
Grp Volume(v), veh/h	395	0	459	0	0	0	91	416	0	0	1002	103
Grp Sat Flow(s),veh/h/ln	1668	0	1712	0	1870	0	1668	1777	0	0	1777	1448
Q Serve(g_s), s	20.8	0.0	24.6	0.0	0.0	0.0	5.1	5.0	0.0	0.0	18.8	1.5
Cycle Q Clear(g_c), s	20.8	0.0	24.6	0.0	0.0	0.0	5.1	5.0	0.0	0.0	18.8	1.5
Prop In Lane	1.00		0.51	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	488	0	501	0	2	0	115	2140	0	0	1764	1153
V/C Ratio(X)	0.81	0.00	0.92	0.00	0.00	0.00	0.79	0.19	0.00	0.00	0.57	0.09
Avail Cap(c_a), veh/h	509	0	523	0	79	0	202	2140	0	0	1764	1153
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.91	0.91
Uniform Delay (d), s/veh	31.1	0.0	32.5	0.0	0.0	0.0	43.6	8.5	0.0	0.0	16.8	2.3
Incr Delay (d2), s/veh	9.2	0.0	20.6	0.0	0.0	0.0	11.6	0.2	0.0	0.0	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.4	0.0	18.6	0.0	0.0	0.0	4.3	3.1	0.0	0.0	11.3	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	0.0	53.0	0.0	0.0	0.0	55.1	8.7	0.0	0.0	18.0	2.4
LnGrp LOS	D	A	D	A	A	A	E	A	A	A	B	A
Approach Vol, veh/h		854			0			507			1105	
Approach Delay, s/veh		47.1			0.0			17.0			16.5	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.0	53.2		31.8		63.2		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	11.5	33.0		29.0		48.0		4.0				
Max Q Clear Time (g_c+I1), s	7.1	20.8		26.6		7.0		0.0				
Green Ext Time (p_c), s	0.1	5.6		1.2		2.8		0.0				

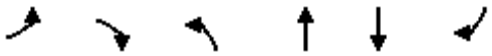
Intersection Summary												
HCM 6th Ctrl Delay			27.2									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.50	1.43	2.82	2.92
Pedestrian Crosswalk LOS	B	A	C	C

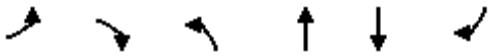
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	2	6
Total Flow Rate (veh/h)	790	0	507	1105
Effct. Green for Bike (s)	27.8	4.3	57.2	45.1
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	585	91	1204	949
Bicycle Delay (s/bike)	23.8	43.3	7.5	13.1
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.93	1.39	1.76	2.24
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1146	97	118	529	258	475
v/c Ratio	0.87	0.14	0.27	0.66	0.53	0.47
Control Delay	30.8	8.9	11.9	18.5	26.6	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.8	8.9	11.9	18.5	26.6	6.5
Queue Length 50th (ft)	220	9	27	159	96	70
Queue Length 95th (ft)	#452	45	52	245	162	121
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		180	200			
Base Capacity (vph)	1315	690	470	1772	1427	1006
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.14	0.25	0.30	0.18	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1100	93	106	476	248	456
Future Volume (veh/h)	1100	93	106	476	248	456
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	1146	97	118	529	258	475
Peak Hour Factor	0.96	0.96	0.90	0.90	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1297	619	351	825	527	1028
Arrive On Green	0.38	0.38	0.07	0.44	0.28	0.28
Sat Flow, veh/h	3456	1648	1781	1870	1870	1535
Grp Volume(v), veh/h	1146	97	118	529	258	475
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1535
Q Serve(g_s), s	20.3	2.6	2.9	14.4	7.5	10.0
Cycle Q Clear(g_c), s	20.3	2.6	2.9	14.4	7.5	10.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1297	619	351	825	527	1028
V/C Ratio(X)	0.88	0.16	0.34	0.64	0.49	0.46
Avail Cap(c_a), veh/h	1321	630	503	1029	1430	1768
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	13.6	14.3	14.2	19.6	5.6
Incr Delay (d2), s/veh	8.2	0.3	0.6	1.1	0.9	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.8	0.1	1.8	8.8	5.5	11.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.3	13.9	14.8	15.3	20.5	6.0
LnGrp LOS	C	B	B	B	C	A
Approach Vol, veh/h	1243			647	733	
Approach Delay, s/veh	26.2			15.2	11.1	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		34.9		30.5	10.4	24.4
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0		25.0	10.0	50.0
Max Q Clear Time (g_c+I1), s		16.4		22.3	4.9	12.0
Green Ext Time (p_c), s		3.7		2.3	0.1	6.1

Intersection Summary		
HCM 6th Ctrl Delay	19.3	
HCM 6th LOS	B	

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	10.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	1	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196586.8	32400.0	294852.8
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	849.0	8666.9	0.0
Crosswalk Circulation Code	A	A	-
Pedestrian Delay (s/p)	43.8	43.8	51.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.88	2.44	2.93
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	3	6	4
Total Flow Rate (veh/h)	1243	647	733
Effct. Green for Bike (s)	25.5	28.8	17.3
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	495	559	336
Bicycle Delay (s/bike)	29.2	26.8	35.7
Bicycle Compliance	Fair	Fair	Poor
Bicycle LOS Score	2.06	2.35	2.48
Bicycle LOS	B	B	B

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	120	1237	279	0	692
Future Vol, veh/h	0	120	1237	279	0	692
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	95	95	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	129	1302	294	0	721

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	798	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	329	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	329	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.8	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	329	-
HCM Lane V/C Ratio	-	-	0.392	-
HCM Control Delay (s)	-	-	22.8	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1.8	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	49234.1
Level of Service	F

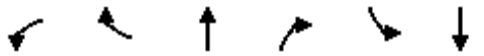
Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	1929
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.92
Delay for adq Gap	49235.98
Avg Ped Delay (s)	49234.12

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	49234.1
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	1929
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.92
Delay for adq Gap	49235.98
Avg Ped Delay (s)	49234.12

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	233	1532	77	658
v/c Ratio	0.45	0.62	0.44	0.26
Control Delay	23.6	7.6	16.3	4.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.6	7.6	16.3	4.7
Queue Length 50th (ft)	38	127	10	39
Queue Length 95th (ft)	70	351	76	114
Internal Link Dist (ft)	742	269		1054
Turn Bay Length (ft)			170	
Base Capacity (vph)	1342	2717	195	2813
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.17	0.56	0.39	0.23

Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	136	87	1063	301	70	599
Future Volume (vph)	136	87	1063	301	70	599
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		6.0		6.0	6.0
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	0.99		0.99		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.94		0.97		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3270		3403		1769	3539
Flt Permitted	0.97		1.00		0.13	1.00
Satd. Flow (perm)	3270		3403		247	3539
Peak-hour factor, PHF	0.96	0.96	0.89	0.89	0.91	0.91
Adj. Flow (vph)	142	91	1194	338	77	658
RTOR Reduction (vph)	64	0	18	0	0	0
Lane Group Flow (vph)	169	0	1514	0	77	658
Confl. Peds. (#/hr)		3		2	2	
Confl. Bikes (#/hr)				4		
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	10.7		55.1		55.1	55.1
Effective Green, g (s)	10.7		55.1		55.1	55.1
Actuated g/C Ratio	0.14		0.72		0.72	0.72
Clearance Time (s)	5.0		6.0		6.0	6.0
Vehicle Extension (s)	2.0		5.5		5.5	5.5
Lane Grp Cap (vph)	455		2441		177	2539
v/s Ratio Prot	c0.05		c0.44			0.19
v/s Ratio Perm					0.31	
v/c Ratio	0.37		0.62		0.44	0.26
Uniform Delay, d1	30.0		5.5		4.5	3.8
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	0.2		0.8		4.2	0.1
Delay (s)	30.2		6.3		8.6	3.9
Level of Service	C		A		A	A
Approach Delay (s)	30.2		6.3			4.4
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	8.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	76.8	Sum of lost time (s)	11.0
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

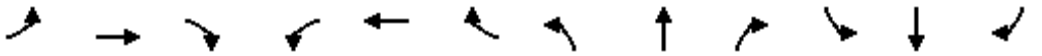
Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	1	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	2	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	4620.9	16173.2	10746.5
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	2052.3	0.0	3178.8
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	42.8	40.1	42.8
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	3.08	2.83
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	5	6
Total Flow Rate (veh/h)	233	1532	735
Effct. Green for Bike (s)	10.7	55.1	55.1
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	212	1091	1091
Bicycle Delay (s/bike)	40.4	10.5	10.5
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	1.17	2.46	2.09
Bicycle LOS	A	B	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	45	33	214	211	376	23	531	730	352	424
v/c Ratio	0.26	0.14	0.56	0.55	0.58	0.20	0.62	0.79	0.72	0.23
Control Delay	49.5	1.3	41.4	41.1	7.7	57.8	38.7	12.7	47.0	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.5	1.3	41.4	41.1	7.7	57.8	38.7	12.7	47.0	18.5
Queue Length 50th (ft)	26	0	117	115	0	13	146	101	190	62
Queue Length 95th (ft)	74	0	244	240	53	53	303	192	#607	202
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		100	165	
Base Capacity (vph)	328	359	925	930	1026	214	1558	1295	487	2092
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.09	0.23	0.23	0.37	0.11	0.34	0.56	0.72	0.20

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	17	29	345	12	316	22	499	686	317	370	12
Future Volume (veh/h)	23	17	29	345	12	316	22	499	686	317	370	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	19	33	421	0	0	23	531	730	352	411	13
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.94	0.94	0.94	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	49	36	70	534	0		42	1456	874	391	2127	67
Arrive On Green	0.05	0.05	0.05	0.15	0.00	0.00	0.02	0.41	0.41	0.22	0.61	0.61
Sat Flow, veh/h	1050	768	1512	3563	0	1585	1781	3554	1552	1781	3512	111
Grp Volume(v), veh/h	45	0	33	421	0	0	23	531	730	352	208	216
Grp Sat Flow(s),veh/h/ln	1818	0	1512	1781	0	1585	1781	1777	1552	1781	1777	1846
Q Serve(g_s), s	2.4	0.0	2.1	11.1	0.0	0.0	1.2	10.1	38.2	18.8	5.1	5.1
Cycle Q Clear(g_c), s	2.4	0.0	2.1	11.1	0.0	0.0	1.2	10.1	38.2	18.8	5.1	5.1
Prop In Lane	0.58		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	85	0	70	534	0		42	1456	874	391	1076	1118
V/C Ratio(X)	0.53	0.00	0.47	0.79	0.00		0.54	0.36	0.84	0.90	0.19	0.19
Avail Cap(c_a), veh/h	279	0	232	1825	0		201	1456	874	456	1076	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.5	0.0	45.4	40.0	0.0	0.0	47.1	20.0	17.9	37.0	8.6	8.6
Incr Delay (d2), s/veh	1.9	0.0	1.8	1.0	0.0	0.0	4.0	0.3	7.8	19.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	0.0	1.4	8.3	0.0	0.0	1.1	7.2	26.4	15.1	3.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	0.0	47.2	41.0	0.0	0.0	51.1	20.3	25.7	56.2	8.8	8.8
LnGrp LOS	D	A	D	D	A		D	C	C	E	A	A
Approach Vol, veh/h		78			421	A		1284			776	
Approach Delay, s/veh		47.3			41.0			23.9			30.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.9	44.5		9.0	5.8	63.6		19.1				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	25.0	40.0		15.0	11.0	40.0		50.0				
Max Q Clear Time (g_c+I1), s	20.8	40.2		4.4	3.2	7.1		13.1				
Green Ext Time (p_c), s	0.7	0.0		0.1	0.0	5.1		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		29.4	
HCM 6th LOS		C	

Notes

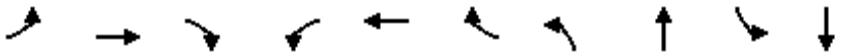
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	0	6	1	1
Ped. Right-Left Flow Rate (p/h)	0	3	3	1
Ped. R. Sidewalk Flow Rate (p/h)	1	1	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	117946.6	49123.9	45313.5	294866.4
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	1678.8	493.8
Crosswalk Circulation Code	-	F	A	A
Pedestrian Delay (s/p)	65.7	65.7	65.7	65.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.04	3.02	3.42	2.77
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	4	2	4	9
Total Flow Rate (veh/h)	78	801	1284	776
Effct. Green for Bike (s)	9.3	22.3	23.8	50.9
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	127	303	324	693
Bicycle Delay (s/bike)	64.6	52.9	51.7	31.6
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.73	3.89	2.31	1.88
Bicycle LOS	C	D	B	B

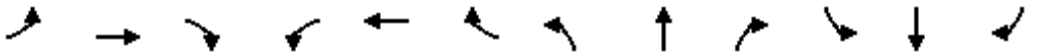


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	370	173	217	126	112	78	244	411	363	922
v/c Ratio	1.01	0.43	0.43	0.57	0.48	0.22	0.71	0.54	0.99	0.81
Control Delay	87.7	34.5	7.3	47.8	43.2	1.4	51.9	32.2	83.1	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.7	34.5	7.3	47.8	43.2	1.4	51.9	32.2	83.1	33.4
Queue Length 50th (ft)	~224	87	0	67	60	0	69	98	~208	228
Queue Length 95th (ft)	#318	115	19	121	99	0	#140	166	#449	#370
Internal Link Dist (ft)		1706			363			1325		863
Turn Bay Length (ft)	250			105		410	300		210	
Base Capacity (vph)	366	558	611	285	450	516	355	884	366	1240
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.31	0.36	0.44	0.25	0.15	0.69	0.46	0.99	0.74

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	263	123	154	103	92	64	234	340	55	330	658	181
Future Volume (veh/h)	263	123	154	103	92	64	234	340	55	330	658	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.95	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	370	173	217	126	112	78	244	354	57	363	723	199
Peak Hour Factor	0.71	0.71	0.71	0.82	0.82	0.82	0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	378	469	391	160	240	193	322	606	96	378	869	239
Arrive On Green	0.21	0.25	0.25	0.09	0.13	0.13	0.09	0.20	0.20	0.21	0.32	0.32
Sat Flow, veh/h	1781	1870	1560	1781	1870	1506	3456	3043	484	1781	2731	752
Grp Volume(v), veh/h	370	173	217	126	112	78	244	205	206	363	470	452
Grp Sat Flow(s),veh/h/ln	1781	1870	1560	1781	1870	1506	1728	1777	1750	1781	1777	1706
Q Serve(g_s), s	17.5	6.5	10.3	5.9	4.7	4.0	5.8	8.8	9.1	17.1	20.8	20.8
Cycle Q Clear(g_c), s	17.5	6.5	10.3	5.9	4.7	4.0	5.8	8.8	9.1	17.1	20.8	20.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.44
Lane Grp Cap(c), veh/h	378	469	391	160	240	193	322	354	349	378	565	543
V/C Ratio(X)	0.98	0.37	0.56	0.79	0.47	0.40	0.76	0.58	0.59	0.96	0.83	0.83
Avail Cap(c_a), veh/h	378	574	479	294	464	373	367	461	454	378	650	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	26.2	27.6	37.8	34.3	34.0	37.5	30.7	30.8	33.0	26.8	26.8
Incr Delay (d2), s/veh	40.2	0.2	0.5	8.2	0.5	0.5	7.0	1.9	2.1	35.5	8.4	8.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	16.8	4.9	6.6	5.1	3.7	2.6	4.8	6.8	6.9	16.0	14.5	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.4	26.4	28.1	45.9	34.8	34.5	44.5	32.6	32.9	68.5	35.2	35.5
LnGrp LOS	E	C	C	D	C	C	D	C	C	E	D	D
Approach Vol, veh/h		760			316			655			1285	
Approach Delay, s/veh		49.8			39.1			37.1			44.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	22.9	11.6	27.2	12.9	33.0	22.0	16.9
Change Period (Y+Rc), s	5.0	6.0	4.0	* 6	5.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	18.0	22.0	14.0	* 26	9.0	31.0	18.0	21.0
Max Q Clear Time (g_c+I1), s	19.1	11.1	7.9	12.3	7.8	22.8	19.5	6.7
Green Ext Time (p_c), s	0.0	2.2	0.2	1.0	0.1	4.2	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	43.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

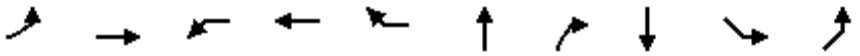
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	90.0	70.0	80.0	70.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	4	6	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	6.0	6.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	60.00	60.00	100.00
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	3	1	4	0
Ped. R. Sidewalk Flow Rate (p/h)	6	3	2	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	4063.9	4904.6	2324.1	30000.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	4667.7	1717.3	953.5	0.0
Crosswalk Circulation Code	A	A	A	-
Pedestrian Delay (s/p)	39.6	39.6	39.6	39.6
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.74	2.48	2.90	2.96
Pedestrian Crosswalk LOS	C	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	1	8	15
Total Flow Rate (veh/h)	760	316	655	1285
Effct. Green for Bike (s)	19.0	10.9	19.2	28.5
Cross Street Width (ft)	80.0	80.0	62.0	75.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	380	218	384	570
Bicycle Delay (s/bike)	32.9	39.7	32.8	25.8
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.75	2.02	1.76	2.48
Bicycle LOS	C	B	B	B

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	0
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	889	616	495	0
Demand Flow Rate, veh/h	920	647	504	0
Vehicles Circulating, veh/h	0	366	920	569
Vehicles Exiting, veh/h	569	1058	0	444
Ped Vol Crossing Leg, #/h	5	5	5	5
Ped Cap Adj	0.994	0.996	1.000	1.000
Approach Delay, s/veh	5.7	7.2	12.5	0.0
Approach LOS	A	A	B	-

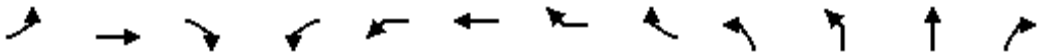
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	R
Assumed Moves	LT	TR	LT	TR	LT	R
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	0.361	0.639
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	432	488	304	343	182	322
Cap Entry Lane, veh/h	1350	1420	964	1040	579	650
Entry HV Adj Factor	0.967	0.965	0.953	0.952	0.983	0.981
Flow Entry, veh/h	418	471	290	327	179	316
Cap Entry, veh/h	1297	1363	915	987	569	637
V/C Ratio	0.322	0.346	0.317	0.331	0.314	0.496
Control Delay, s/veh	5.7	5.8	7.3	7.1	10.8	13.5
LOS	A	A	A	A	B	B
95th %tile Queue, veh	1	2	1	1	1	3



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	19	865	66	676	352	45	87	490	20	20
v/c Ratio	0.29	0.83	0.80	0.54	0.56	0.08	0.12	0.88	0.20	0.07
Control Delay	66.2	45.2	106.7	32.9	22.1	22.8	0.3	48.8	58.3	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	45.2	106.7	32.9	22.1	22.8	0.3	48.8	58.3	0.6
Queue Length 50th (ft)	12	251	41	152	80	15	0	250	12	0
Queue Length 95th (ft)	42	#508	#130	302	221	50	0	363	43	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	66	1037	83	1257	628	551	756	559	98	339
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.83	0.80	0.54	0.56	0.08	0.12	0.88	0.20	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	18	801	4	24	30	554	151	138	13	17	9	76
Future Volume (vph)	18	801	4	24	30	554	151	138	13	17	9	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00				1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.94				1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85				1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00	1.00				0.96	1.00
Satd. Flow (prot)	1770	3536			1770	3539	1490				1789	1554
Flt Permitted	0.95	1.00			0.95	1.00	1.00				0.70	1.00
Satd. Flow (perm)	1770	3536			1770	3539	1490				1293	1554
Peak-hour factor, PHF	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.87	0.87	0.87	0.87
Adj. Flow (vph)	19	861	4	29	37	676	184	168	15	20	10	87
RTOR Reduction (vph)	0	0	0	0	0	0	106	0	0	0	0	53
Lane Group Flow (vph)	19	865	0	0	66	676	246	0	0	0	45	34
Confl. Peds. (#/hr)			1				5	5	2	2		5
Confl. Bikes (#/hr)			2				4	4				5
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	Perm	NA	Perm
Protected Phases	5	2		1	1	6					8	
Permitted Phases							6		8	8		8
Actuated Green, G (s)	1.4	35.3			5.1	38.0	38.0				45.6	45.6
Effective Green, g (s)	1.4	35.3			5.1	38.0	38.0				45.6	45.6
Actuated g/C Ratio	0.01	0.30			0.04	0.32	0.32				0.39	0.39
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0				3.5	3.5
Lane Grp Cap (vph)	21	1065			77	1147	483				503	604
v/s Ratio Prot	0.01	c0.24			c0.04	c0.19						
v/s Ratio Perm							0.17				0.03	0.02
v/c Ratio	0.90	0.81			0.86	0.59	0.51				0.09	0.06
Uniform Delay, d1	57.8	37.9			55.7	33.1	32.1				22.7	22.4
Progression Factor	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Incremental Delay, d2	149.1	5.4			55.1	1.2	1.8				0.1	0.0
Delay (s)	206.9	43.3			110.8	34.3	33.8				22.8	22.4
Level of Service	F	D			F	C	C				C	C
Approach Delay (s)		46.8				38.8					22.5	
Approach LOS		D				D					C	

Intersection Summary			
HCM 2000 Control Delay	45.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	117.2	Sum of lost time (s)	27.0
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		

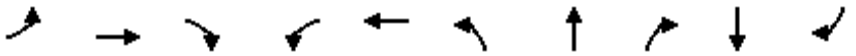
c Critical Lane Group

Movement	SBL	SBT	SBR	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations											
Traffic Volume (vph)	281	3	45	5	5	5	5	5	5	5	5
Future Volume (vph)	281	3	45	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0				5.0		
Lane Util. Factor		1.00			1.00				1.00		
Frpb, ped/bikes		1.00			1.00				1.00		
Flpb, ped/bikes		0.99			1.00				1.00		
Frt		0.98			0.93				0.93		
Flt Protected		0.96			0.98				0.98		
Satd. Flow (prot)		1738			1695				1695		
Flt Permitted		0.73			1.00				0.98		
Satd. Flow (perm)		1315			1737				1695		
Peak-hour factor, PHF	0.67	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	419	4	67	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	0	490	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)	5		2								
Confl. Bikes (#/hr)											
Turn Type	Perm	NA		Perm	Prot			Perm	Prot		
Protected Phases		4			7				3		
Permitted Phases	4			7				3			
Actuated Green, G (s)		45.6			2.1				3.1		
Effective Green, g (s)		45.6			2.1				3.1		
Actuated g/C Ratio		0.39			0.02				0.03		
Clearance Time (s)		5.0			5.0				5.0		
Vehicle Extension (s)		3.5			2.0				1.5		
Lane Grp Cap (vph)		511			31				44		
v/s Ratio Prot											
v/s Ratio Perm		c0.37			c0.01				0.00		
v/c Ratio		0.96			0.65				0.01		
Uniform Delay, d1		34.9			57.2				55.6		
Progression Factor		1.00			1.00				1.00		
Incremental Delay, d2		29.5			29.6				0.0		
Delay (s)		64.4			86.8				55.6		
Level of Service		E			F				E		
Approach Delay (s)		64.4			86.8				55.6		
Approach LOS		E			F				E		

Intersection Summary

Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29667.5	11552.9	0.0	72900.0	24278.3
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2260.8	4209.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	52.0	52.0	52.0	52.0	52.0	52.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.79	3.30	2.02	2.05	1.82	1.78
Pedestrian Crosswalk LOS	C	C	B	B	B	B

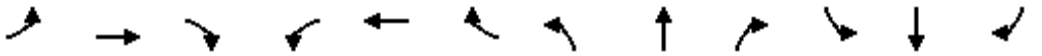
Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	884	1094	132	490	20	20
Effct. Green for Bike (s)	31.4	38.0	45.6	45.6	6.1	7.1
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	502	608	730	730	98	114
Bicycle Delay (s/bike)	35.1	30.5	25.4	25.3	56.5	55.6
Bicycle Compliance	Poor	Poor	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.79	1.56	2.87	2.74	2.62	2.20
Bicycle LOS	C	B	C	C	C	B



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	22	865	600	446	746	202	205	208	24	13
v/c Ratio	0.22	0.67	0.85	0.77	0.27	0.70	0.71	0.27	0.14	0.04
Control Delay	57.5	32.6	33.9	52.0	16.7	53.7	54.2	4.3	44.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.5	32.6	33.9	52.0	16.7	53.7	54.2	4.3	44.5	0.2
Queue Length 50th (ft)	13	236	231	138	76	126	128	0	14	0
Queue Length 95th (ft)	46	#474	#604	#281	197	173	176	4	29	0
Internal Link Dist (ft)		217			575		1379		108	
Turn Bay Length (ft)	145		90	350		150				50
Base Capacity (vph)	111	1300	702	576	2802	529	531	761	561	607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.67	0.85	0.77	0.27	0.38	0.39	0.27	0.04	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	744	516	361	570	34	263	1	135	14	1	8
Future Volume (veh/h)	19	744	516	361	570	34	263	1	135	14	1	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	865	600	446	704	42	406	0	208	22	2	12
Peak Hour Factor	0.86	0.86	0.86	0.81	0.81	0.81	0.65	0.65	0.65	0.64	0.64	0.64
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	33	1371	596	526	2554	152	568	0	493	62	6	59
Arrive On Green	0.02	0.39	0.39	0.15	0.52	0.52	0.16	0.00	0.16	0.04	0.04	0.04
Sat Flow, veh/h	1781	3554	1544	3456	4919	292	3563	0	1576	1639	149	1553
Grp Volume(v), veh/h	22	865	600	446	486	260	406	0	208	24	0	12
Grp Sat Flow(s),veh/h/ln	1781	1777	1544	1728	1702	1806	1781	0	1576	1788	0	1553
Q Serve(g_s), s	1.1	17.9	35.0	11.4	7.3	7.3	9.8	0.0	9.5	1.2	0.0	0.7
Cycle Q Clear(g_c), s	1.1	17.9	35.0	11.4	7.3	7.3	9.8	0.0	9.5	1.2	0.0	0.7
Prop In Lane	1.00		1.00	1.00		0.16	1.00		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	33	1371	596	526	1768	938	568	0	493	68	0	59
V/C Ratio(X)	0.66	0.63	1.01	0.85	0.27	0.28	0.71	0.00	0.42	0.35	0.00	0.20
Avail Cap(c_a), veh/h	118	1371	596	610	1768	938	1178	0	763	591	0	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.2	22.6	27.9	37.4	12.2	12.2	36.2	0.0	24.8	42.6	0.0	42.3
Incr Delay (d2), s/veh	11.2	2.2	38.6	8.9	0.4	0.7	1.3	0.0	0.4	1.9	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	11.6	25.0	9.0	4.6	5.1	7.5	0.0	6.1	1.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	24.8	66.4	46.3	12.6	13.0	37.4	0.0	25.2	44.5	0.0	43.4
LnGrp LOS	E	C	F	D	B	B	D	A	C	D	A	D
Approach Vol, veh/h		1487			1192			614			36	
Approach Delay, s/veh		42.1			25.3			33.3			44.1	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.8	41.0		9.4	7.7	53.1		20.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	16.0	35.0		30.0	6.0	45.0		30.0				
Max Q Clear Time (g_c+I1), s	13.4	37.0		3.2	3.1	9.3		11.8				
Green Ext Time (p_c), s	0.4	0.0		0.1	0.0	15.5		2.1				

Intersection Summary												
HCM 6th Ctrl Delay			34.5									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

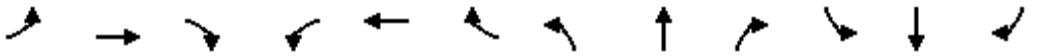
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	105.0	120.0	90.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	8	5	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	14.00	14.00	14.00	14.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	2
Ped. Right-Left Flow Rate (p/h)	1	0	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	40	25
Right Corner Area per Ped (sq.ft)	2477.3	2076.3	6300.0	1352.5
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3603.4	0.0	4994.2	1565.4
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	56.9	56.9	56.9	56.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.19	3.14	2.80	1.99
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	16	9	0	1
Total Flow Rate (veh/h)	1487	1192	615	36
Effct. Green for Bike (s)	36.3	55.0	16.9	9.5
Cross Street Width (ft)	70.0	55.0	87.0	82.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	538	815	250	141
Bicycle Delay (s/bike)	36.4	23.8	51.7	58.4
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.36	1.77	2.62	1.59
Bicycle LOS	B	B	C	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	1017	142	383	196	194	360	12	12	14
v/c Ratio	0.41	0.43	0.57	0.12	0.74	0.73	0.51	0.09	0.09	0.05
Control Delay	64.5	20.7	36.6	1.8	56.1	55.1	4.2	41.2	41.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.5	20.7	36.6	1.8	56.1	55.1	4.2	41.2	41.4	0.4
Queue Length 50th (ft)	18	166	94	15	125	123	3	7	7	0
Queue Length 95th (ft)	#52	254	160	20	166	165	16	16	16	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	70	2388	295	3144	315	317	724	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.43	0.48	0.12	0.62	0.61	0.50	0.04	0.05	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	879	57	126	334	7	290	10	277	8	7	9
Future Volume (veh/h)	27	879	57	126	334	7	290	10	277	8	7	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	29	955	62	142	375	8	386	0	360	12	12	14
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.77	0.77	0.77	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	387	1464	95	596	2262	48	510	0	753	53	52	47
Arrive On Green	0.22	0.30	0.30	0.71	0.88	0.88	0.15	0.00	0.15	0.03	0.03	0.03
Sat Flow, veh/h	1781	4880	316	1668	5141	109	3337	0	1459	1781	1752	1561
Grp Volume(v), veh/h	29	665	352	142	248	135	386	0	360	12	12	14
Grp Sat Flow(s),veh/h/ln	1781	1702	1792	1668	1702	1846	1668	0	1459	1781	1752	1561
Q Serve(g_s), s	1.3	17.0	17.1	2.9	1.0	1.0	11.1	0.0	0.0	0.7	0.7	0.9
Cycle Q Clear(g_c), s	1.3	17.0	17.1	2.9	1.0	1.0	11.1	0.0	0.0	0.7	0.7	0.9
Prop In Lane	1.00		0.18	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	387	1021	538	596	1498	812	510	0	753	53	52	47
V/C Ratio(X)	0.07	0.65	0.65	0.24	0.17	0.17	0.76	0.00	0.48	0.23	0.23	0.30
Avail Cap(c_a), veh/h	387	1021	538	596	1498	812	667	0	822	285	280	250
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.74	0.74	0.74	0.86	0.86	0.86	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	30.5	30.5	9.6	3.4	3.4	40.6	0.0	15.8	47.4	47.4	47.5
Incr Delay (d2), s/veh	0.1	2.4	4.5	0.2	0.2	0.4	3.6	0.0	0.5	2.1	2.2	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.0	10.8	11.8	1.8	0.7	0.8	8.3	0.0	8.9	0.6	0.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	32.9	35.0	9.8	3.6	3.8	44.2	0.0	16.3	49.5	49.6	51.0
LnGrp LOS	C	C	D	A	A	A	D	A	B	D	D	D
Approach Vol, veh/h		1046			525			746			38	
Approach Delay, s/veh		33.5			5.3			30.7			50.1	
Approach LOS		C			A			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	39.7	34.0		7.0	25.7	48.0		19.3				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	18.0	30.0		16.0	4.0	44.0		20.0				
Max Q Clear Time (g_c+I1), s	4.9	19.1		2.9	3.3	3.0		13.1				
Green Ext Time (p_c), s	0.4	5.0		0.1	0.0	2.6		2.2				

Intersection Summary			
HCM 6th Ctrl Delay		26.6	
HCM 6th LOS		C	

Notes

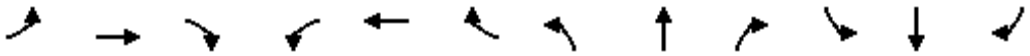
User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	100.0	90.0	100.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	0.1	8.0	0.1	12.0
Right Corner Size B (ft)	6.0	0.1	10.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.60	0.80	1.00	1.20
Ped. Left-Right Flow Rate (p/h)	0	0	3	1
Ped. Right-Left Flow Rate (p/h)	2	0	8	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21.6	668.2	44.2	270.0
Right Corner Quality of Service	D	A	B	A
Ped. Circulation Area (sq.ft)	6056.1	0.0	1035.7	11234.4
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.90	2.91	2.73	2.17
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	20	11	0	0
Total Flow Rate (veh/h)	1046	525	750	38
Effct. Green for Bike (s)	47.7	62.0	17.0	8.0
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	954	1240	340	160
Bicycle Delay (s/bike)	13.8	7.3	34.4	42.3
Bicycle Compliance	Fair	Good	Poor	Poor
Bicycle LOS Score	1.84	1.56	3.13	2.94
Bicycle LOS	B	B	C	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	613	1368	726	114	238
v/c Ratio	0.71	0.54	0.53	0.34	0.72
Control Delay	28.9	4.7	24.9	34.2	41.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.9	4.7	24.9	34.2	41.1
Queue Length 50th (ft)	182	72	167	64	118
Queue Length 95th (ft)	150	122	272	91	161
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	859	2530	1380	557	520
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.71	0.54	0.53	0.20	0.46

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	484	1081	0	0	497	135	100	3	207	0	0	0
Future Volume (veh/h)	484	1081	0	0	497	135	100	3	207	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	613	1368	0	0	571	155	114	3	235			
Peak Hour Factor	0.79	0.79	0.79	0.87	0.87	0.87	0.88	0.88	0.88			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1308	2538	0	0	743	201	343	4	299			
Arrive On Green	0.81	1.00	0.00	0.00	0.27	0.27	0.21	0.21	0.21			
Sat Flow, veh/h	3237	3647	0	0	2847	745	1668	19	1454			
Grp Volume(v), veh/h	613	1368	0	0	368	358	114	0	238			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1722	1668	0	1472			
Q Serve(g_s), s	5.8	0.0	0.0	0.0	19.1	19.2	5.8	0.0	15.3			
Cycle Q Clear(g_c), s	5.8	0.0	0.0	0.0	19.1	19.2	5.8	0.0	15.3			
Prop In Lane	1.00		0.00	0.00		0.43	1.00		0.99			
Lane Grp Cap(c), veh/h	1308	2538	0	0	480	465	343	0	303			
V/C Ratio(X)	0.47	0.54	0.00	0.00	0.77	0.77	0.33	0.00	0.79			
Avail Cap(c_a), veh/h	1308	2538	0	0	480	465	567	0	501			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.90	0.90	0.00	0.00	0.96	0.96	1.00	0.00	1.00			
Uniform Delay (d), s/veh	6.3	0.0	0.0	0.0	33.6	33.6	33.8	0.0	37.6			
Incr Delay (d2), s/veh	0.2	0.7	0.0	0.0	10.7	11.3	0.6	0.0	4.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.6	0.5	0.0	0.0	14.3	14.1	4.3	0.0	9.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.5	0.7	0.0	0.0	44.3	44.9	34.4	0.0	42.1			
LnGrp LOS	A	A	A	A	D	D	C	A	D			
Approach Vol, veh/h		1981			726			352				
Approach Delay, s/veh		2.5			44.6			39.6				
Approach LOS		A			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.4			44.4	31.0		24.6				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			27.0	27.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			7.8	21.2		17.3				
Green Ext Time (p_c), s		15.7			2.9	2.3		1.9				
Intersection Summary												
HCM 6th Ctrl Delay			16.8									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	100.0	55.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0	0.1
Right Corner Size B (ft)	6.0	6.0	6.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	3548.2	4628.6	1884.6	0.0
Right Corner Quality of Service	A	A	A	-
Ped. Circulation Area (sq.ft)	0.0	1347.2	1252.8	0.0
Crosswalk Circulation Code	-	A	A	-
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.97	2.82	2.01	2.10
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	7	12	0	0
Total Flow Rate (veh/h)	1981	726	352	0
Effct. Green for Bike (s)	71.5	40.5	20.5	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1430	810	410	0
Bicycle Delay (s/bike)	4.1	17.8	31.6	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.75	1.64	2.31	0.00
Bicycle LOS	C	B	B	

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	250	69	531	955
Demand Flow Rate, veh/h	255	70	542	974
Vehicles Circulating, veh/h	886	575	134	198
Vehicles Exiting, veh/h	286	101	1007	447
Ped Vol Crossing Leg, #/h	5	5	0	0
Ped Cap Adj	1.000	0.999	1.000	1.000
Approach Delay, s/veh	10.7	4.9	4.9	7.5
Approach LOS	B	A	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	255	70	255	287	458	516
Cap Entry Lane, veh/h	669	871	1193	1267	1125	1200
Entry HV Adj Factor	0.980	0.992	0.979	0.981	0.980	0.981
Flow Entry, veh/h	250	69	250	281	449	506
Cap Entry, veh/h	655	864	1168	1243	1103	1178
V/C Ratio	0.381	0.080	0.214	0.226	0.407	0.430
Control Delay, s/veh	10.7	4.9	5.0	4.9	7.5	7.5
LOS	B	A	A	A	A	A
95th %tile Queue, veh	2	0	1	1	2	2

Intersection	
Intersection Delay, s/veh	3.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	23	106	122	17
Demand Flow Rate, veh/h	23	108	124	17
Vehicles Circulating, veh/h	104	15	25	108
Vehicles Exiting, veh/h	21	134	102	15
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.1	3.3	3.5	3.0
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	23	108	124	17
Cap Entry Lane, veh/h	1241	1359	1345	1236
Entry HV Adj Factor	0.989	0.979	0.983	0.994
Flow Entry, veh/h	23	106	122	17
Cap Entry, veh/h	1227	1331	1322	1229
V/C Ratio	0.019	0.079	0.092	0.014
Control Delay, s/veh	3.1	3.3	3.5	3.0
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	2	459	363	2	829	320	155	512
v/c Ratio	0.01	1.02	0.23	0.03	0.94	0.37	1.04	0.47
Control Delay	0.0	91.8	0.3	63.0	49.9	7.1	137.5	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	91.8	0.3	63.0	49.9	7.1	137.5	18.8
Queue Length 50th (ft)	0	331	0	1	529	27	114	177
Queue Length 95th (ft)	0	#610	0	12	#1174	123	#323	489
Internal Link Dist (ft)	160	615			469			438
Turn Bay Length (ft)			180	120		370	490	
Base Capacity (vph)	522	450	1583	59	882	863	149	1095
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	1.02	0.23	0.03	0.94	0.37	1.04	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	356	2	283	2	779	301	136	450	1
Future Volume (veh/h)	0	0	1	356	2	283	2	779	301	136	450	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	2	456	3	0	2	829	0	155	511	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.94	0.94	0.94	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	15	453	3		4	863		152	1016	2
Arrive On Green	0.00	0.00	0.01	0.26	0.26	0.00	0.00	0.46	0.00	0.09	0.54	0.54
Sat Flow, veh/h	0	0	1539	1770	12	1585	1781	1870	1585	1781	1866	4
Grp Volume(v), veh/h	0	0	2	459	0	0	2	829	0	155	0	512
Grp Sat Flow(s),veh/h/ln	0	0	1539	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.2	30.0	0.0	0.0	0.1	50.3	0.0	10.0	0.0	20.1
Cycle Q Clear(g_c), s	0.0	0.0	0.2	30.0	0.0	0.0	0.1	50.3	0.0	10.0	0.0	20.1
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	15	456	0		4	863		152	0	1018
V/C Ratio(X)	0.00	0.00	0.14	1.01	0.00		0.52	0.96		1.02	0.00	0.50
Avail Cap(c_a), veh/h	0	0	354	456	0		61	894		152	0	1018
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	57.6	43.6	0.0	0.0	58.4	30.5	0.0	53.6	0.0	16.7
Incr Delay (d2), s/veh	0.0	0.0	4.1	43.8	0.0	0.0	80.6	20.7	0.0	78.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.1	25.3	0.0	0.0	0.3	33.7	0.0	12.2	0.0	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	61.6	87.4	0.0	0.0	139.0	51.3	0.0	132.0	0.0	17.1
LnGrp LOS	A	A	E	F	A		F	D		F	A	B
Approach Vol, veh/h		2			459	A		831	A		667	
Approach Delay, s/veh		61.6			87.4			51.5			43.8	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.0	60.1		6.1	5.3	69.8		36.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	10.0	56.0		27.0	4.0	62.0		30.0				
Max Q Clear Time (g_c+I1), s	12.0	52.3		2.2	2.1	22.1		32.0				
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	3.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		57.3	
HCM 6th LOS		E	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	1	1	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	9.01	83150.0	53470.3	-81.6
Right Corner Quality of Service	E	A	A	F
Ped. Circulation Area (sq.ft)	0.2	8957.0	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	72.5	63.8	63.8	72.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.44	2.83	2.98
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	15	4	7
Total Flow Rate (veh/h)	2	822	1151	667
Effct. Green for Bike (s)	9.1	30.3	56.6	70.2
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	126	418	781	968
Bicycle Delay (s/bike)	63.7	45.7	27.0	19.4
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.71	4.06	3.24	2.02
Bicycle LOS	C	D	C	B

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	111	197	1276	928	34
Future Vol, veh/h	11	111	197	1276	928	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	119	212	1372	998	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2127	518	1035	0	-	0
Stage 1	1017	-	-	-	-	-
Stage 2	1110	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	43	502	667	-	-	-
Stage 1	310	-	-	-	-	-
Stage 2	277	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	29	502	667	-	-	-
Mov Cap-2 Maneuver	29	-	-	-	-	-
Stage 1	211	-	-	-	-	-
Stage 2	277	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	30.9	1.7	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	667	-	29	502	-	-
HCM Lane V/C Ratio	0.318	-	0.408	0.238	-	-
HCM Control Delay (s)	12.9	-	197.2	14.4	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	1.4	-	1.3	0.9	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	12249250.0	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	2204	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.98	
Delay for adq Gap	12249251.00	
Avg Ped Delay (s)	12249250.00	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	367.6	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	928	1276
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.98	0.98
Prob of Blocked Lane	0.87	0.87
Delay for adq Gap	215.07	158.72
Avg Ped Delay (s)	211.46	156.09

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	174	63	1482	133	41	1087
v/c Ratio	0.31	0.20	0.73	0.14	0.18	0.46
Control Delay	25.8	8.3	17.3	3.9	7.6	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.8	8.3	17.3	3.9	7.6	7.4
Queue Length 50th (ft)	33	0	231	2	4	77
Queue Length 95th (ft)	43	14	#603	38	24	252
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1381	663	2036	919	393	2764
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.10	0.73	0.14	0.10	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	118	43	1423	128	38	1000
Future Volume (veh/h)	118	43	1423	128	38	1000
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	174	63	1482	133	41	1087
Peak Hour Factor	0.68	0.68	0.96	0.96	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	340	156	2037	878	268	2526
Arrive On Green	0.10	0.10	0.57	0.57	0.03	0.71
Sat Flow, veh/h	3456	1585	3647	1531	1781	3647
Grp Volume(v), veh/h	174	63	1482	133	41	1087
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1531	1781	1777
Q Serve(g_s), s	2.8	2.2	17.6	2.3	0.5	7.3
Cycle Q Clear(g_c), s	2.8	2.2	17.6	2.3	0.5	7.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	340	156	2037	878	268	2526
V/C Ratio(X)	0.51	0.40	0.73	0.15	0.15	0.43
Avail Cap(c_a), veh/h	1619	743	2159	930	580	3022
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	24.4	9.0	5.7	7.6	3.5
Incr Delay (d2), s/veh	1.2	1.7	1.6	0.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	0.1	9.3	1.1	0.2	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.9	26.1	10.6	5.9	7.7	3.7
LnGrp LOS	C	C	B	A	A	A
Approach Vol, veh/h	237		1615			1128
Approach Delay, s/veh	25.9		10.2			3.8
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		47.0		10.7	7.9	39.0
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		49.0		27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		9.3		4.8	2.5	19.6
Green Ext Time (p_c), s		17.2		1.0	0.0	13.4

Intersection Summary	
HCM 6th Ctrl Delay	9.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	48.6	72.1	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	7	0	5
Ped. Right-Left Flow Rate (p/h)	4	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	4524.3	6041.8	14580.0
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	F	-	F
Pedestrian Delay (s/p)	45.5	45.5	45.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	2.87	3.09
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	2	8	6
Total Flow Rate (veh/h)	237	1615	1128
Effct. Green for Bike (s)	11.5	39.9	46.6
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	253	877	1024
Bicycle Delay (s/bike)	34.8	14.4	10.9
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	2.83	2.37	1.46
Bicycle LOS	C	B	A

Intersection	
Int Delay, s/veh	5.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	63	1495	57	44	1074
Future Vol, veh/h	26	63	1495	57	44	1074
Conflicting Peds, #/hr	0	0	0	19	19	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	83	1590	61	47	1143

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2306	845	0	0	1670	0
Stage 1	1640	-	-	-	-	-
Stage 2	666	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	45	263	-	-	183	-
Stage 1	98	-	-	-	-	-
Stage 2	459	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 33	258	-	-	180	-
Mov Cap-2 Maneuver	~ 33	-	-	-	-	-
Stage 1	96	-	-	-	-	-
Stage 2	339	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	119.7	0	1.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	33	258	180	-
HCM Lane V/C Ratio	-	-	1.037	0.321	0.26	-
HCM Control Delay (s)	-	-	$ 348.1	25.4	31.9	-
HCM Lane LOS	-	-	F	D	D	-
HCM 95th %tile Q(veh)	-	-	3.7	1.3	1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	3698.0	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	1495	1074
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	1.00	0.99
Prob of Blocked Lane	0.91	0.92
Delay for adq Gap	3139.08	564.60
Avg Ped Delay (s)	3136.69	561.35

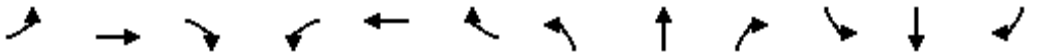
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	1110693376.0
Level of Service	F

Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2569
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	1110693376.00
Avg Ped Delay (s)	1110693376.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	33	98	72	34	151	1728	15	1140	23
v/c Ratio	0.11	0.20	0.23	0.07	0.38	0.52	0.06	0.76	0.03
Control Delay	22.0	1.4	23.9	0.3	10.8	11.9	9.7	25.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	1.4	23.9	0.3	10.8	11.9	9.7	25.6	0.1
Queue Length 50th (ft)	11	0	25	0	15	95	1	176	0
Queue Length 95th (ft)	30	0	53	0	73	368	12	#485	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	502	678	515	662	644	3318	381	1619	782
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.14	0.14	0.05	0.23	0.52	0.04	0.70	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	4	79	42	15	27	136	1498	58	14	1060	21
Future Volume (veh/h)	23	4	79	42	15	27	136	1498	58	14	1060	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.97	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	5	98	52	19	34	151	1664	64	15	1140	23
Peak Hour Factor	0.81	0.81	0.81	0.80	0.80	0.80	0.90	0.90	0.90	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	10	449	90	20	443	310	2365	91	181	1401	590
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.09	0.47	0.47	0.01	0.39	0.39
Sat Flow, veh/h	0	33	1555	0	68	1536	1781	5034	194	1781	3554	1496
Grp Volume(v), veh/h	33	0	98	71	0	34	151	1125	603	15	1140	23
Grp Sat Flow(s),veh/h/ln	33	0	1555	68	0	1536	1781	1702	1823	1781	1777	1496
Q Serve(g_s), s	0.0	0.0	3.3	0.0	0.0	1.1	3.1	18.1	18.2	0.4	19.8	0.7
Cycle Q Clear(g_c), s	20.0	0.0	3.3	20.0	0.0	1.1	3.1	18.1	18.2	0.4	19.8	0.7
Prop In Lane	0.85		1.00	0.73		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	106	0	449	110	0	443	310	1599	857	181	1401	590
V/C Ratio(X)	0.31	0.00	0.22	0.65	0.00	0.08	0.49	0.70	0.70	0.08	0.81	0.04
Avail Cap(c_a), veh/h	106	0	449	110	0	443	670	1599	857	419	1487	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.9	0.0	18.7	29.2	0.0	17.9	14.0	14.6	14.6	13.6	18.7	12.9
Incr Delay (d2), s/veh	2.3	0.0	0.3	14.0	0.0	0.1	2.5	1.7	3.1	0.1	4.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	0.0	2.1	2.9	0.0	0.7	2.1	10.0	11.0	0.2	12.1	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	19.1	43.2	0.0	18.0	16.5	16.2	17.7	13.8	22.7	13.0
LnGrp LOS	C	A	B	D	A	B	B	B	B	B	C	B
Approach Vol, veh/h		131			105			1879			1178	
Approach Delay, s/veh		22.1			35.0			16.7			22.4	
Approach LOS		C			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	33.3		25.0	5.8	38.6		25.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	29.0		20.0	10.0	29.0		20.0				
Max Q Clear Time (g_c+I1), s	5.1	21.8		22.0	2.4	20.2		22.0				
Green Ext Time (p_c), s	0.9	5.5		0.0	0.0	7.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		19.5	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

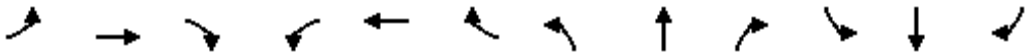
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	11	0	8
Ped. Right-Left Flow Rate (p/h)	1	12	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	196591.6	14365.2	25624.9	28061.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	6140.9	799.0	0.0	699.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	1.99	3.23	3.20
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	3	10	9
Total Flow Rate (veh/h)	131	105	1879	1178
Effct. Green for Bike (s)	15.3	15.3	45.7	29.2
Cross Street Width (ft)	80.0	80.0	36.0	40.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	360	360	1075	687
Bicycle Delay (s/bike)	28.6	28.6	9.1	18.4
Bicycle Compliance	Fair	Fair	Good	Fair
Bicycle LOS Score	3.00	2.96	3.14	2.07
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	73	180	340	345	323	111	1162	233	396	851
v/c Ratio	0.30	0.70	0.39	0.79	0.53	0.54	0.76	0.24	0.78	0.73
Control Delay	47.1	57.3	37.3	49.7	7.5	61.2	41.0	2.2	59.0	38.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	57.3	37.3	49.7	7.5	61.2	41.0	2.2	59.0	38.0
Queue Length 50th (ft)	49	117	105	222	0	80	284	0	146	279
Queue Length 95th (ft)	80	160	162	#408	82	#175	375	36	#237	392
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	373	385	906	450	617	205	1521	971	513	1235
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.47	0.38	0.77	0.52	0.54	0.76	0.24	0.77	0.69

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	95	45	313	157	457	104	1092	219	376	766	43
Future Volume (veh/h)	57	95	45	313	157	457	104	1092	219	376	766	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	122	58	340	416	334	111	1162	233	396	806	45
Peak Hour Factor	0.78	0.78	0.78	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	264	174	83	923	485	393	209	1508	867	475	1076	60
Arrive On Green	0.15	0.15	0.15	0.26	0.26	0.26	0.12	0.30	0.30	0.14	0.32	0.32
Sat Flow, veh/h	1781	1173	557	3563	1870	1517	1781	5106	1546	3456	3414	191
Grp Volume(v), veh/h	73	0	180	340	416	334	111	1162	233	396	419	432
Grp Sat Flow(s),veh/h/ln	1781	0	1730	1781	1870	1517	1781	1702	1546	1728	1777	1828
Q Serve(g_s), s	4.1	0.0	11.1	8.8	23.8	23.5	6.6	23.4	8.9	12.6	23.8	23.8
Cycle Q Clear(g_c), s	4.1	0.0	11.1	8.8	23.8	23.5	6.6	23.4	8.9	12.6	23.8	23.8
Prop In Lane	1.00		0.32	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	264	0	256	923	485	393	209	1508	867	475	560	576
V/C Ratio(X)	0.28	0.00	0.70	0.37	0.86	0.85	0.53	0.77	0.27	0.83	0.75	0.75
Avail Cap(c_a), veh/h	380	0	369	950	499	405	209	1543	878	522	632	650
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	0.0	45.6	34.1	39.7	39.6	46.7	36.2	13.1	47.3	34.5	34.5
Incr Delay (d2), s/veh	0.4	0.0	2.6	0.9	16.6	18.8	1.3	3.9	0.8	14.4	8.9	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.3	0.0	8.6	6.8	18.6	15.7	5.2	14.9	9.0	10.3	16.6	17.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	0.0	48.2	35.0	56.3	58.4	48.1	40.0	13.9	61.6	43.4	43.2
LnGrp LOS	D	A	D	D	E	E	D	D	B	E	D	D
Approach Vol, veh/h		253			1090			1506			1247	
Approach Delay, s/veh		46.7			50.3			36.6			49.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.7	17.2	39.5		34.1	19.5	37.2				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	11.0	40.0		30.0	17.0	34.0				
Max Q Clear Time (g_c+I1), s		13.1	8.6	25.8		25.8	14.6	25.4				
Green Ext Time (p_c), s		0.8	0.0	9.7		3.3	0.9	7.9				

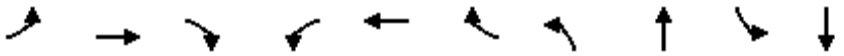
Intersection Summary												
HCM 6th Ctrl Delay			44.7									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	3	3	10
Ped. Right-Left Flow Rate (p/h)	5	1	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53572.2	24545.0	7429.8	21034.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1234.7	2379.2	2056.0	351.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	51.0	51.0	53.8	53.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.15	3.06	3.18	3.49
Pedestrian Crosswalk LOS	B	C	C	C

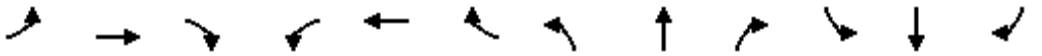
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	14	7	3
Total Flow Rate (veh/h)	253	1008	1506	1247
Effct. Green for Bike (s)	15.7	29.2	34.1	37.8
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	255	475	554	615
Bicycle Delay (s/bike)	46.9	36.0	32.2	29.6
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.25	4.42	2.10	2.63
Bicycle LOS	C	D	B	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	401	204	277	264	182	206	482	1118	213	1219
v/c Ratio	0.73	0.55	0.52	0.58	0.57	0.48	0.76	0.63	0.63	0.90
Control Delay	49.8	42.0	7.8	47.5	45.0	9.8	48.3	29.5	54.8	46.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	42.0	7.8	47.5	45.0	9.8	48.3	29.5	54.8	46.6
Queue Length 50th (ft)	125	119	0	82	111	6	151	205	68	263
Queue Length 95th (ft)	#215	200	64	141	179	63	245	332	#138	#500
Internal Link Dist (ft)		461			455			697		1255
Turn Bay Length (ft)	240		240	300		200	300		200	
Base Capacity (vph)	631	407	557	1192	647	667	771	1902	350	1347
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.50	0.50	0.22	0.28	0.31	0.63	0.59	0.61	0.90

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	361	184	249	238	164	185	468	991	93	194	930	179
Future Volume (veh/h)	361	184	249	238	164	185	468	991	93	194	930	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	401	204	277	264	182	206	482	1022	96	213	1022	197
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	498	426	353	375	359	298	589	1678	157	288	1143	220
Arrive On Green	0.14	0.23	0.23	0.11	0.19	0.19	0.17	0.35	0.35	0.08	0.27	0.27
Sat Flow, veh/h	3456	1870	1551	3456	1870	1550	3456	4740	444	3456	4281	824
Grp Volume(v), veh/h	401	204	277	264	182	206	482	733	385	213	812	407
Grp Sat Flow(s),veh/h/ln	1728	1870	1551	1728	1870	1550	1728	1702	1780	1728	1702	1700
Q Serve(g_s), s	10.4	8.8	15.6	6.8	8.1	11.5	12.5	16.5	16.5	5.6	21.3	21.4
Cycle Q Clear(g_c), s	10.4	8.8	15.6	6.8	8.1	11.5	12.5	16.5	16.5	5.6	21.3	21.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.48
Lane Grp Cap(c), veh/h	498	426	353	375	359	298	589	1205	630	288	909	454
V/C Ratio(X)	0.80	0.48	0.78	0.70	0.51	0.69	0.82	0.61	0.61	0.74	0.89	0.90
Avail Cap(c_a), veh/h	670	426	353	1265	685	568	819	1356	709	372	916	458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	31.1	33.7	39.9	33.6	34.9	37.1	24.7	24.7	41.6	32.8	32.8
Incr Delay (d2), s/veh	5.2	0.8	11.0	2.4	1.1	2.9	4.6	1.5	2.9	5.6	12.1	21.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.3	7.3	11.2	5.5	6.8	8.1	9.2	10.5	11.2	4.5	14.8	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	31.9	44.7	42.4	34.7	37.8	41.8	26.2	27.6	47.1	44.9	54.2
LnGrp LOS	D	C	D	D	C	D	D	C	C	D	D	D
Approach Vol, veh/h		882			652			1600			1432	
Approach Delay, s/veh		41.3			38.8			31.2			47.9	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	30.8	15.1	26.2	12.7	38.9	18.4	22.8
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	22.0	25.0	34.0	18.0	10.0	37.0	18.0	34.0
Max Q Clear Time (g_c+I1), s	14.5	23.4	8.8	17.6	7.6	18.5	12.4	13.5
Green Ext Time (p_c), s	1.3	1.4	1.2	0.1	0.2	12.3	1.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

Notes

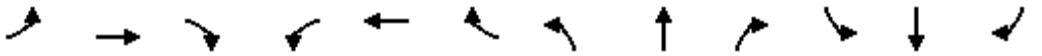
User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	100.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	6	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	0	5	0	0
Ped. Right-Left Flow Rate (p/h)	2	2	0	5
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	44935.8	7489.3	12811.3	12811.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3628.0	1451.2	0.0	1961.9
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	51.3	51.3	60.0	51.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.79	2.66	3.33	3.31
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	3	3	3
Total Flow Rate (veh/h)	882	652	1600	1432
Effct. Green for Bike (s)	20.0	17.2	35.3	26.7
Cross Street Width (ft)	100.0	99.0	80.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	333	287	588	445
Bicycle Delay (s/bike)	41.7	44.1	29.9	36.3
Bicycle Compliance	Poor	Poor	Fair	Poor
Bicycle LOS Score	4.54	2.86	2.38	1.98
Bicycle LOS	E	C	B	B

Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	72	82	86	101	103	1652	44	1461	74
v/c Ratio	0.38	0.23	0.42	0.29	0.38	0.74	0.32	0.68	0.08
Control Delay	35.9	2.9	36.6	5.3	38.5	13.6	40.8	13.1	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	2.9	36.6	5.3	38.5	13.6	40.8	13.1	2.7
Queue Length 50th (ft)	32	0	39	0	24	285	20	227	1
Queue Length 95th (ft)	71	10	68	25	50	435	54	346	18
Internal Link Dist (ft)				233		1200		376	
Turn Bay Length (ft)	100	100	175		150		100		100
Base Capacity (vph)	559	766	610	761	270	2246	141	2265	1037
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.11	0.14	0.13	0.38	0.74	0.31	0.65	0.07

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	0	75	66	0	78	95	1445	58	40	1315	68
Future Volume (veh/h)	66	0	75	66	0	78	95	1445	58	40	1315	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	0	82	86	0	101	103	1588	64	44	1461	74
Peak Hour Factor	0.92	0.92	0.92	0.77	0.92	0.77	0.92	0.91	0.91	0.90	0.90	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	288	244	313	0	244	270	2021	81	60	1908	845
Arrive On Green	0.15	0.00	0.15	0.15	0.00	0.15	0.08	0.58	0.58	0.03	0.54	0.54
Sat Flow, veh/h	1294	1870	1585	1316	0	1585	3456	3477	140	1781	3554	1575
Grp Volume(v), veh/h	72	0	82	86	0	101	103	808	844	44	1461	74
Grp Sat Flow(s),veh/h/ln	1294	1870	1585	1316	0	1585	1728	1777	1840	1781	1777	1575
Q Serve(g_s), s	3.5	0.0	3.0	3.8	0.0	3.7	1.8	22.7	23.0	1.6	21.0	1.5
Cycle Q Clear(g_c), s	7.2	0.0	3.0	3.8	0.0	3.7	1.8	22.7	23.0	1.6	21.0	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	236	288	244	313	0	244	270	1033	1069	60	1908	845
V/C Ratio(X)	0.31	0.00	0.34	0.27	0.00	0.41	0.38	0.78	0.79	0.73	0.77	0.09
Avail Cap(c_a), veh/h	697	954	809	781	0	806	320	1257	1302	168	2520	1117
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	0.0	24.5	24.8	0.0	24.8	28.4	10.4	10.5	31.0	11.8	7.3
Incr Delay (d2), s/veh	0.7	0.0	0.8	0.5	0.0	1.1	0.9	2.7	2.7	15.6	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	0.0	2.1	2.2	0.0	2.6	1.3	10.9	11.4	1.6	10.3	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.8	0.0	25.3	25.3	0.0	25.9	29.3	13.1	13.2	46.7	12.9	7.3
LnGrp LOS	C	A	C	C	A	C	C	B	B	D	B	A
Approach Vol, veh/h		154			187			1755			1579	
Approach Delay, s/veh		26.9			25.6			14.1			13.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	43.5		14.7	9.6	40.6		14.7				
Change Period (Y+Rc), s	4.5	5.8		* 4.7	4.5	5.8		* 4.7				
Max Green Setting (Gmax), s	6.1	45.9		* 33	6.0	46.0		* 33				
Max Q Clear Time (g_c+I1), s	3.6	25.0		9.2	3.8	23.0		5.8				
Green Ext Time (p_c), s	0.0	12.0		0.6	0.1	11.9		0.9				

Intersection Summary			
HCM 6th Ctrl Delay		15.0	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

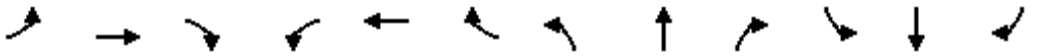
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.5	36.1	72.7	83.8
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	50.0	50.0	50.0	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.23	2.03	3.29	3.28
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	154	187	1755	1579
Effct. Green for Bike (s)	11.3	11.2	48.8	46.4
Cross Street Width (ft)	72.7	83.8	36.1	50.5
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	226	224	976	928
Bicycle Delay (s/bike)	39.3	39.4	13.1	14.4
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.93	3.15	3.56	3.63
Bicycle LOS	C	C	D	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	37	9	74	152	78	70	1639	54	44	1428	47
v/c Ratio	0.19	0.03	0.24	0.74	0.26	0.27	0.70	0.05	0.20	0.62	0.05
Control Delay	35.5	31.6	6.8	59.1	10.6	5.5	16.0	2.2	6.4	13.3	1.0
Queue Delay	0.0	0.0	0.2	1.1	0.0	0.0	24.2	0.0	0.0	0.0	0.0
Total Delay	35.5	31.6	6.9	60.2	10.6	5.5	40.3	2.2	6.4	13.4	1.0
Queue Length 50th (ft)	20	5	0	89	1	9	470	2	6	256	0
Queue Length 95th (ft)	41	15	19	130	31	m10	599	m7	18	419	6
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	442	627	594	471	586	318	2351	1044	273	2285	1034
Starvation Cap Reductn	0	0	0	0	0	0	776	0	0	0	0
Spillback Cap Reductn	0	0	183	157	0	0	0	0	0	57	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.01	0.18	0.48	0.13	0.22	1.04	0.05	0.16	0.64	0.05

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	7	61	126	2	63	66	1541	51	42	1357	45
Future Volume (veh/h)	30	7	61	126	2	63	66	1541	51	42	1357	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	37	9	0	152	2	76	70	1639	54	44	1428	47
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	194	251		258	5	208	305	2350	1021	291	2321	1019
Arrive On Green	0.13	0.13	0.00	0.13	0.13	0.13	0.06	0.88	0.88	0.04	0.65	0.65
Sat Flow, veh/h	1321	1870	1585	1406	41	1550	1781	3554	1544	1781	3554	1560
Grp Volume(v), veh/h	37	9	0	152	0	78	70	1639	54	44	1428	47
Grp Sat Flow(s),veh/h/ln	1321	1870	1585	1406	0	1591	1781	1777	1544	1781	1777	1560
Q Serve(g_s), s	2.5	0.4	0.0	10.0	0.0	4.2	1.2	13.6	0.4	0.7	22.1	1.0
Cycle Q Clear(g_c), s	6.7	0.4	0.0	10.4	0.0	4.2	1.2	13.6	0.4	0.7	22.1	1.0
Prop In Lane	1.00		1.00	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	194	251		258	0	213	305	2350	1021	291	2321	1019
V/C Ratio(X)	0.19	0.04		0.59	0.00	0.37	0.23	0.70	0.05	0.15	0.62	0.05
Avail Cap(c_a), veh/h	462	630		544	0	536	395	2350	1021	395	2321	1019
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.64	0.64	0.64	0.72	0.72	0.72
Uniform Delay (d), s/veh	40.5	35.8	0.0	40.3	0.0	37.5	7.6	2.8	2.0	5.7	9.5	5.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.8	0.0	0.4	0.1	1.1	0.1	0.2	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.5	0.3	0.0	6.3	0.0	3.0	0.6	4.0	0.2	0.4	10.6	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	35.8	0.0	41.1	0.0	37.8	7.7	3.9	2.0	5.9	10.4	6.0
LnGrp LOS	D	D		D	A	D	A	A	A	A	B	A
Approach Vol, veh/h		46	A		230			1763			1519	
Approach Delay, s/veh		39.7			40.0			4.0			10.2	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	68.1		17.7	8.4	68.8		17.7				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	9.0	38.0		32.0	9.0	38.0		32.0				
Max Q Clear Time (g_c+I1), s	3.2	24.1		12.4	2.7	15.6		8.7				
Green Ext Time (p_c), s	0.0	12.6		0.3	0.0	20.6		0.0				

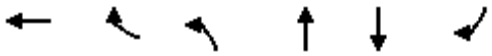
Intersection Summary			
HCM 6th Ctrl Delay		9.4	
HCM 6th LOS		A	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	39.8	39.8	39.8	39.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.49	2.12	3.41	3.27
Pedestrian Crosswalk LOS	B	B	C	C

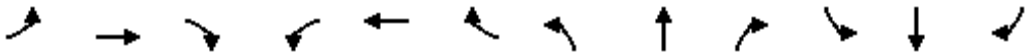
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	4
Total Flow Rate (veh/h)	120	230	1763	1519
Effct. Green for Bike (s)	13.9	13.9	63.1	61.3
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	7.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	293	293	1328	1291
Bicycle Delay (s/bike)	34.6	34.6	5.4	6.0
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.07	3.32	2.05	0.82
Bicycle LOS	C	C	B	A



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	260	380	97	1480	846	696
v/c Ratio	0.53	0.78	0.52	0.69	0.53	0.76
Control Delay	30.2	35.3	54.3	10.2	23.2	15.2
Queue Delay	0.0	0.1	0.0	48.8	0.7	0.4
Total Delay	30.2	35.3	54.3	59.0	23.9	15.6
Queue Length 50th (ft)	129	172	56	134	135	51
Queue Length 95th (ft)	166	229	m86	358	258	#323
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	763	716	188	2148	1592	920
Starvation Cap Reductn	0	0	0	0	404	32
Spillback Cap Reductn	0	17	0	909	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.54	0.52	1.19	0.71	0.78

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



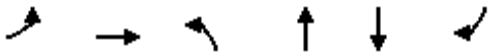
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	223	8	338	84	1288	0	0	778	640
Future Volume (veh/h)	0	0	0	223	8	338	84	1288	0	0	778	640
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				251	9	380	97	1480	0	0	846	696
Peak Hour Factor				0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				482	17	444	120	2155	0	0	1750	712
Arrive On Green				0.30	0.30	0.30	0.10	0.81	0.00	0.00	0.98	0.98
Sat Flow, veh/h				1613	58	1485	1668	3647	0	0	3647	1446
Grp Volume(v), veh/h				260	0	380	97	1480	0	0	846	696
Grp Sat Flow(s),veh/h/ln				1671	0	1485	1668	1777	0	0	1777	1446
Q Serve(g_s), s				12.3	0.0	22.9	5.4	17.2	0.0	0.0	0.7	18.9
Cycle Q Clear(g_c), s				12.3	0.0	22.9	5.4	17.2	0.0	0.0	0.7	18.9
Prop In Lane				0.97		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				499	0	444	120	2155	0	0	1750	712
V/C Ratio(X)				0.52	0.00	0.86	0.81	0.69	0.00	0.00	0.48	0.98
Avail Cap(c_a), veh/h				774	0	688	123	2155	0	0	1750	712
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.81	0.81	0.00	0.00	0.75	0.75
Uniform Delay (d), s/veh				27.7	0.0	31.4	42.3	5.3	0.0	0.0	0.4	0.5
Incr Delay (d2), s/veh				0.8	0.0	6.6	26.2	1.5	0.0	0.0	0.7	24.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				8.6	0.0	13.6	5.3	6.3	0.0	0.0	0.5	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.5	0.0	38.0	68.5	6.7	0.0	0.0	1.1	24.9
LnGrp LOS				C	A	D	E	A	A	A	A	C
Approach Vol, veh/h					640			1577			1542	
Approach Delay, s/veh					34.1			10.5			11.8	
Approach LOS					C			B			B	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	10.8	51.8				62.6		32.4				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	7.0	31.0				42.0		44.0				
Max Q Clear Time (g_c+I1), s	7.4	20.9				19.2		24.9				
Green Ext Time (p_c), s	0.0	6.2				11.6		3.5				

Intersection Summary												
HCM 6th Ctrl Delay			15.1									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	630.0	133.2	11000.7	581.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.3	2436.3	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.29	2.21	3.09	3.31
Pedestrian Crosswalk LOS	B	B	C	C

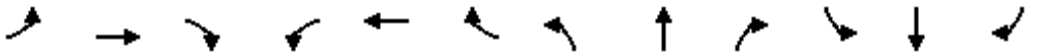
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	7
Total Flow Rate (veh/h)	0	640	1577	1542
Effct. Green for Bike (s)	0.0	28.3	57.7	42.8
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	596	1215	901
Bicycle Delay (s/bike)	0.0	23.4	7.3	14.4
Bicycle Compliance		Fair	Good	Fair
Bicycle LOS Score	0.00	2.60	2.23	1.94
Bicycle LOS		C	B	B



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	417	398	198	802	779	369
v/c Ratio	0.90	0.76	0.61	0.38	0.60	0.33
Control Delay	57.1	31.0	43.7	10.7	20.2	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	31.0	43.7	10.7	20.2	3.2
Queue Length 50th (ft)	249	158	109	125	175	54
Queue Length 95th (ft)	#431	#280	182	163	193	0
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	475	539	323	2118	1289	1113
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.74	0.61	0.38	0.60	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	591	0	159	0	0	0	190	770	0	0	678	321
Future Volume (veh/h)	591	0	159	0	0	0	190	770	0	0	678	321
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	408	328	173	0	0	0	198	802	0	0	779	369
Peak Hour Factor	0.92	0.92	0.92	0.25	0.25	0.25	0.96	0.96	0.96	0.87	0.87	0.87
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	504	349	184	0	2	0	202	2105	0	0	1544	1076
Arrive On Green	0.30	0.30	0.30	0.00	0.00	0.00	0.12	0.59	0.00	0.00	0.29	0.29
Sat Flow, veh/h	1668	1153	608	0	1870	0	1668	3647	0	0	3647	1443
Grp Volume(v), veh/h	408	0	501	0	0	0	198	802	0	0	779	369
Grp Sat Flow(s),veh/h/ln	1668	0	1761	0	1870	0	1668	1777	0	0	1777	1443
Q Serve(g_s), s	21.5	0.0	26.4	0.0	0.0	0.0	11.2	11.3	0.0	0.0	17.3	9.7
Cycle Q Clear(g_c), s	21.5	0.0	26.4	0.0	0.0	0.0	11.2	11.3	0.0	0.0	17.3	9.7
Prop In Lane	1.00		0.35	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	504	0	532	0	2	0	202	2105	0	0	1544	1076
V/C Ratio(X)	0.81	0.00	0.94	0.00	0.00	0.00	0.98	0.38	0.00	0.00	0.50	0.34
Avail Cap(c_a), veh/h	509	0	538	0	79	0	202	2105	0	0	1544	1076
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.83	0.83
Uniform Delay (d), s/veh	30.6	0.0	32.3	0.0	0.0	0.0	41.6	10.2	0.0	0.0	25.2	5.7
Incr Delay (d2), s/veh	9.4	0.0	24.9	0.0	0.0	0.0	57.5	0.5	0.0	0.0	1.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.8	0.0	20.8	0.0	0.0	0.0	12.2	7.0	0.0	0.0	11.8	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	0.0	57.2	0.0	0.0	0.0	99.1	10.7	0.0	0.0	26.2	6.4
LnGrp LOS	D	A	E	A	A	A	F	B	A	A	C	A
Approach Vol, veh/h		909			0			1000			1148	
Approach Delay, s/veh		49.5			0.0			28.2			19.8	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	15.0	47.3		32.7		62.3		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	11.5	33.0		29.0		48.0		4.0				
Max Q Clear Time (g_c+I1), s	13.2	19.3		28.4		13.3		0.0				
Green Ext Time (p_c), s	0.0	5.8		0.4		6.0		0.0				

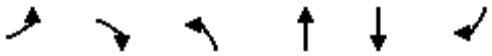
Intersection Summary			
HCM 6th Ctrl Delay		31.4	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	589815.0	7990.2	32375.7	589766.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	8363.4	1986.5	0.0	0.0
Crosswalk Circulation Code	A	A	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.63	1.43	2.88	3.07
Pedestrian Crosswalk LOS	C	A	C	C

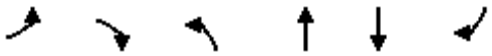
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	8
Total Flow Rate (veh/h)	815	0	1000	1148
Effct. Green for Bike (s)	28.1	4.3	56.9	34.6
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	592	91	1198	728
Bicycle Delay (s/bike)	23.6	43.3	7.7	19.3
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.98	1.39	2.17	2.28
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	899	90	72	295	578	854
v/c Ratio	0.81	0.15	0.24	0.31	0.81	0.78
Control Delay	35.6	10.0	9.9	10.6	32.3	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.6	10.0	9.9	10.6	32.3	11.8
Queue Length 50th (ft)	223	6	16	76	264	186
Queue Length 95th (ft)	#441	46	32	112	395	328
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		180	200			
Base Capacity (vph)	1114	601	342	1513	1210	1100
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.15	0.21	0.19	0.48	0.78

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	827	83	63	257	555	820
Future Volume (veh/h)	827	83	63	257	555	820
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	899	90	72	295	578	854
Peak Hour Factor	0.92	0.92	0.87	0.87	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	971	463	251	1091	876	1166
Arrive On Green	0.28	0.28	0.05	0.58	0.47	0.47
Sat Flow, veh/h	3456	1648	1781	1870	1870	1538
Grp Volume(v), veh/h	899	90	72	295	578	854
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1538
Q Serve(g_s), s	22.4	3.7	1.7	6.9	21.0	27.6
Cycle Q Clear(g_c), s	22.4	3.7	1.7	6.9	21.0	27.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	971	463	251	1091	876	1166
V/C Ratio(X)	0.93	0.19	0.29	0.27	0.66	0.73
Avail Cap(c_a), veh/h	977	466	369	1091	1058	1315
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.9	24.2	13.5	9.1	18.1	6.2
Incr Delay (d2), s/veh	14.9	0.6	0.6	0.2	1.4	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	15.9	0.1	1.1	4.3	13.2	25.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.8	24.7	14.2	9.3	19.5	8.3
LnGrp LOS	D	C	B	A	B	A
Approach Vol, veh/h	989			367	1432	
Approach Delay, s/veh	43.9			10.2	12.8	
Approach LOS	D			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.6		30.9	10.1	47.4
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0		25.0	10.0	50.0
Max Q Clear Time (g_c+I1), s		8.9		24.4	3.7	29.6
Green Ext Time (p_c), s		2.0		0.5	0.1	11.8

Intersection Summary		
HCM 6th Ctrl Delay	23.5	
HCM 6th LOS	C	

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196586.8	0.0	196568.5
Right Corner Quality of Service	A	-	A
Ped. Circulation Area (sq.ft)	566.1	0.0	0.0
Crosswalk Circulation Code	A	-	-
Pedestrian Delay (s/p)	43.8	43.8	51.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.91	2.45	3.00
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	0	8	7
Total Flow Rate (veh/h)	989	367	1432
Effct. Green for Bike (s)	26.1	41.8	30.8
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	507	812	598
Bicycle Delay (s/bike)	28.7	18.3	25.4
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	1.85	1.89	3.63
Bicycle LOS	B	B	D

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	98	941	218	0	1522
Future Vol, veh/h	0	98	941	218	0	1522
Conflicting Peds, #/hr	0	0	0	0	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	95	95	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	113	991	229	0	1637

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	610	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	437	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	437	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	437	-
HCM Lane V/C Ratio	-	-	0.258	-
HCM Control Delay (s)	-	-	16.1	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	646086.4
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2463
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	646087.81
Avg Ped Delay (s)	646086.38

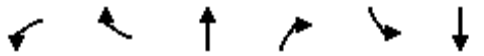
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	646086.4
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2463
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	646087.81
Avg Ped Delay (s)	646086.38

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	721	1210	124	1354
v/c Ratio	0.78	0.61	0.68	0.67
Control Delay	26.9	11.5	35.9	12.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.9	11.5	35.9	12.9
Queue Length 50th (ft)	130	150	32	183
Queue Length 95th (ft)	184	255	#138	308
Internal Link Dist (ft)	742	269		1054
Turn Bay Length (ft)			170	
Base Capacity (vph)	1236	2104	194	2138
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.58	0.58	0.64	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	405	237	1001	148	113	1232
Future Volume (vph)	405	237	1001	148	113	1232
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		6.0		6.0	6.0
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.94		0.98		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3275		3461		1770	3539
Flt Permitted	0.97		1.00		0.17	1.00
Satd. Flow (perm)	3275		3461		322	3539
Peak-hour factor, PHF	0.89	0.89	0.95	0.95	0.91	0.91
Adj. Flow (vph)	455	266	1054	156	124	1354
RTOR Reduction (vph)	57	0	14	0	0	0
Lane Group Flow (vph)	664	0	1196	0	124	1354
Confl. Peds. (#/hr)	1	6				
Confl. Bikes (#/hr)				3		
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	17.8		38.2		38.2	38.2
Effective Green, g (s)	17.8		38.2		38.2	38.2
Actuated g/C Ratio	0.27		0.57		0.57	0.57
Clearance Time (s)	5.0		6.0		6.0	6.0
Vehicle Extension (s)	2.0		5.5		5.5	5.5
Lane Grp Cap (vph)	870		1973		183	2017
v/s Ratio Prot	c0.20		0.35			0.38
v/s Ratio Perm					c0.38	
v/c Ratio	0.76		0.61		0.68	0.67
Uniform Delay, d1	22.7		9.5		10.1	10.0
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	3.6		0.9		13.3	1.3
Delay (s)	26.3		10.3		23.4	11.3
Level of Service	C		B		C	B
Approach Delay (s)	26.3		10.3			12.3
Approach LOS	C		B			B

Intersection Summary			
HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	67.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	0	0	5
Ped. Right-Left Flow Rate (p/h)	0	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	5368.8	32365.9	4623.2
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	17086.7	2191.0
Crosswalk Circulation Code	-	A	A
Pedestrian Delay (s/p)	29.9	27.3	29.9
Pedestrian Compliance Code	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.30	3.29	3.02
Pedestrian Crosswalk LOS	B	C	C

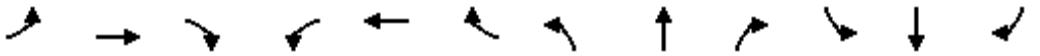
Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	7	7
Total Flow Rate (veh/h)	721	1210	1478
Effct. Green for Bike (s)	17.8	38.2	38.2
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	475	1019	1019
Bicycle Delay (s/bike)	21.9	9.1	9.1
Bicycle Compliance	Fair	Good	Good
Bicycle LOS Score	1.57	2.19	2.70
Bicycle LOS	B	B	C

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	45	29	448	443	693	26	813	585	457	929
v/c Ratio	0.31	0.14	0.81	0.80	0.83	0.29	0.82	0.55	1.31	0.58
Control Delay	66.2	1.4	54.6	53.5	22.4	75.0	53.4	5.9	199.9	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	1.4	54.6	53.5	22.4	75.0	53.4	5.9	199.9	32.3
Queue Length 50th (ft)	40	0	374	368	188	23	360	65	~561	344
Queue Length 95th (ft)	56	0	540	532	311	61	#551	125	#870	508
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		100	165	
Base Capacity (vph)	243	290	663	667	906	153	1118	1153	349	1613
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.10	0.68	0.66	0.76	0.17	0.73	0.51	1.31	0.58

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	15	18	707	24	568	25	772	556	398	760	48
Future Volume (veh/h)	13	15	18	707	24	568	25	772	556	398	760	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	24	29	883	0	0	26	813	585	457	874	55
Peak Hour Factor	0.63	0.63	0.63	0.82	0.82	0.82	0.95	0.95	0.95	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	46	70	983	0		43	1147	936	376	1726	109
Arrive On Green	0.05	0.05	0.05	0.28	0.00	0.00	0.02	0.32	0.32	0.21	0.51	0.51
Sat Flow, veh/h	853	975	1499	3563	0	1585	1781	3554	1546	1781	3388	213
Grp Volume(v), veh/h	45	0	29	883	0	0	26	813	585	457	458	471
Grp Sat Flow(s),veh/h/ln	1828	0	1499	1781	0	1585	1781	1777	1546	1781	1777	1824
Q Serve(g_s), s	2.9	0.0	2.2	28.3	0.0	0.0	1.7	23.8	29.0	25.0	20.2	20.2
Cycle Q Clear(g_c), s	2.9	0.0	2.2	28.3	0.0	0.0	1.7	23.8	29.0	25.0	20.2	20.2
Prop In Lane	0.47		1.00	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	85	0	70	983	0		43	1147	936	376	905	929
V/C Ratio(X)	0.53	0.00	0.41	0.90	0.00		0.60	0.71	0.62	1.22	0.51	0.51
Avail Cap(c_a), veh/h	231	0	190	1504	0		165	1200	959	376	905	929
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	0.0	54.9	41.3	0.0	0.0	57.2	35.2	15.3	46.7	19.2	19.2
Incr Delay (d2), s/veh	1.9	0.0	1.4	3.6	0.0	0.0	4.9	2.4	1.8	119.1	1.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	0.0	1.5	18.1	0.0	0.0	1.5	15.7	24.7	34.4	12.8	13.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.0	0.0	56.3	44.9	0.0	0.0	62.1	37.7	17.2	165.8	20.2	20.1
LnGrp LOS	E	A	E	D	A		E	D	B	F	C	C
Approach Vol, veh/h		74			883	A		1424			1386	
Approach Delay, s/veh		56.8			44.9			29.7			68.2	
Approach LOS		E			D			C			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	28.5	42.7		10.0	6.4	64.9		37.2				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	25.0	40.0		15.0	11.0	40.0		50.0				
Max Q Clear Time (g_c+I1), s	27.0	31.0		4.9	3.7	22.2		30.3				
Green Ext Time (p_c), s	0.0	7.3		0.1	0.0	9.4		2.4				

Intersection Summary		
HCM 6th Ctrl Delay	47.9	
HCM 6th LOS	D	

Notes

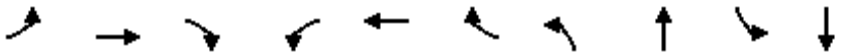
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	3	6	1
Ped. Right-Left Flow Rate (p/h)	1	6	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	1	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	58924.0	53567.3	36848.0	117930.1
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2262.6	0.0	1117.9	987.7
Crosswalk Circulation Code	A	F	A	A
Pedestrian Delay (s/p)	65.7	65.7	65.7	65.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.05	3.16	3.65	3.08
Pedestrian Crosswalk LOS	B	C	D	C

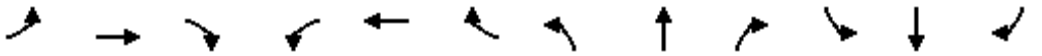
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	8	3	10
Total Flow Rate (veh/h)	74	1584	1424	1386
Effct. Green for Bike (s)	10.3	43.1	36.9	60.3
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	140	586	502	820
Bicycle Delay (s/bike)	63.6	36.9	41.3	25.7
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.72	5.18	2.43	2.38
Bicycle LOS	C	E	B	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	272	79	500	166	264	178	417	1059	113	945
v/c Ratio	0.87	0.18	0.80	0.70	0.76	0.41	0.79	0.79	0.61	0.81
Control Delay	78.6	42.5	25.8	69.3	62.7	9.1	63.1	39.2	69.3	43.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.6	42.5	25.8	69.3	62.7	9.1	63.1	39.2	69.3	43.3
Queue Length 50th (ft)	215	52	129	127	203	0	164	374	88	350
Queue Length 95th (ft)	#466	107	308	233	322	62	#274	566	166	494
Internal Link Dist (ft)		1706			363			1325		863
Turn Bay Length (ft)	250			105		410	300		210	
Base Capacity (vph)	312	548	696	312	532	573	620	1528	320	1480
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.14	0.72	0.53	0.50	0.31	0.67	0.69	0.35	0.64

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	71	450	149	238	160	384	893	81	107	723	175
Future Volume (veh/h)	245	71	450	149	238	160	384	893	81	107	723	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	272	79	500	166	264	178	417	971	88	113	761	184
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	297	532	450	196	425	359	483	1265	115	140	913	221
Arrive On Green	0.17	0.28	0.28	0.11	0.23	0.23	0.14	0.39	0.39	0.08	0.32	0.32
Sat Flow, veh/h	1781	1870	1582	1781	1870	1581	3456	3283	298	1781	2819	682
Grp Volume(v), veh/h	272	79	500	166	264	178	417	525	534	113	480	465
Grp Sat Flow(s),veh/h/ln	1781	1870	1582	1781	1870	1581	1728	1777	1804	1781	1777	1724
Q Serve(g_s), s	18.5	3.9	35.0	11.3	15.6	12.1	14.5	31.8	31.8	7.7	30.8	30.8
Cycle Q Clear(g_c), s	18.5	3.9	35.0	11.3	15.6	12.1	14.5	31.8	31.8	7.7	30.8	30.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		0.40
Lane Grp Cap(c), veh/h	297	532	450	196	425	359	483	684	695	140	575	558
V/C Ratio(X)	0.92	0.15	1.11	0.85	0.62	0.50	0.86	0.77	0.77	0.81	0.83	0.83
Avail Cap(c_a), veh/h	304	532	450	304	517	437	604	736	747	311	736	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.4	32.9	44.0	53.8	42.8	41.4	51.8	33.0	33.0	55.8	38.5	38.5
Incr Delay (d2), s/veh	30.4	0.0	76.4	12.5	0.7	0.4	9.6	4.9	4.8	7.4	7.0	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	15.9	3.1	32.7	9.5	11.6	8.2	11.1	20.3	20.5	6.6	20.3	19.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.8	33.0	120.5	66.3	43.5	41.8	61.4	37.9	37.9	63.2	45.6	45.8
LnGrp LOS	F	C	F	E	D	D	E	D	D	E	D	D
Approach Vol, veh/h		851			608			1476			1058	
Approach Delay, s/veh		99.7			49.2			44.5			47.5	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	52.4	17.5	40.0	20.7	44.9	24.5	33.0
Change Period (Y+Rc), s	3.5	5.0	4.0	* 5	3.5	5.0	4.0	5.0
Max Green Setting (Gmax), s	21.5	51.0	21.0	* 35	21.5	51.0	21.0	34.0
Max Q Clear Time (g_c+I1), s	9.7	33.8	13.3	37.0	16.5	32.8	20.5	17.6
Green Ext Time (p_c), s	0.2	8.0	0.3	0.0	0.7	7.1	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	57.8
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

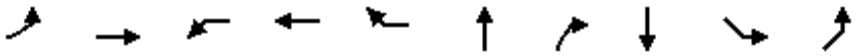
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	90.0	70.0	80.0	70.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	4	6	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	9.0	9.0	9.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	1	0	0	1
Ped. Right-Left Flow Rate (p/h)	2	3	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	17968.1	22420.3	17968.1	22480.1
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2520.7	2500.9	3027.3	5833.1
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	63.8	63.8	63.8	63.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.87	2.49	3.17	3.08
Pedestrian Crosswalk LOS	C	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	15	8
Total Flow Rate (veh/h)	851	608	1476	1058
Effct. Green for Bike (s)	29.0	22.8	46.8	40.9
Cross Street Width (ft)	80.0	80.0	62.0	75.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	400	314	646	564
Bicycle Delay (s/bike)	46.4	51.5	33.5	37.5
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.90	2.50	2.44	2.29
Bicycle LOS	C	C	B	B

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	0
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	967	1264	247	0
Demand Flow Rate, veh/h	998	1313	252	0
Vehicles Circulating, veh/h	0	264	998	1080
Vehicles Exiting, veh/h	1080	986	0	497
Ped Vol Crossing Leg, #/h	5	5	5	5
Ped Cap Adj	0.994	0.995	1.000	1.000
Approach Delay, s/veh	6.0	11.5	9.3	0.0
Approach LOS	A	B	A	-

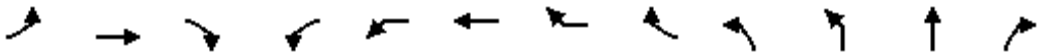
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	R
Assumed Moves	LT	TR	LT	TR	LT	R
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	0.397	0.603
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	469	529	617	696	100	152
Cap Entry Lane, veh/h	1350	1420	1059	1135	539	608
Entry HV Adj Factor	0.969	0.968	0.963	0.963	0.977	0.980
Flow Entry, veh/h	454	512	594	670	98	149
Cap Entry, veh/h	1300	1367	1015	1088	527	596
V/C Ratio	0.349	0.375	0.585	0.616	0.186	0.250
Control Delay, s/veh	6.0	6.1	11.4	11.6	9.3	9.3
LOS	A	A	B	B	A	A
95th %tile Queue, veh	2	2	4	4	1	1



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	29	942	181	1194	559	31	93	239	20	20
v/c Ratio	0.31	0.80	0.86	0.71	0.69	0.09	0.18	0.74	0.14	0.06
Control Delay	52.8	34.8	75.2	26.5	22.4	27.2	0.8	44.5	44.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.8	34.8	75.2	26.5	22.4	27.2	0.8	44.5	44.9	0.3
Queue Length 50th (ft)	12	171	73	147	81	10	0	89	8	0
Queue Length 95th (ft)	#51	#484	#287	#653	#517	38	0	222	38	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	94	1171	211	1689	806	522	678	484	138	435
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.80	0.86	0.71	0.69	0.06	0.14	0.49	0.14	0.05

Intersection Summary

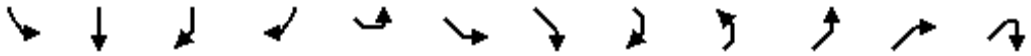
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	25	815	4	79	93	1134	277	254	8	12	7	79
Future Volume (vph)	25	815	4	79	93	1134	277	254	8	12	7	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00				1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.95				1.00	0.97
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85				1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00	1.00				0.96	1.00
Satd. Flow (prot)	1770	3536			1770	3539	1506				1791	1536
Flt Permitted	0.95	1.00			0.95	1.00	1.00				0.79	1.00
Satd. Flow (perm)	1770	3536			1770	3539	1506				1461	1536
Peak-hour factor, PHF	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.85	0.85	0.85	0.85
Adj. Flow (vph)	29	937	5	83	98	1194	292	267	9	14	8	93
RTOR Reduction (vph)	0	0	0	0	0	0	108	0	0	0	0	73
Lane Group Flow (vph)	29	942	0	0	181	1194	451	0	0	0	31	20
Confl. Peds. (#/hr)			4				1	1	2	2		12
Confl. Bikes (#/hr)			1				14	14				1
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	Perm	NA	Perm
Protected Phases	5	2		1	1	6					8	
Permitted Phases							6		8	8		8
Actuated Green, G (s)	1.3	30.7			9.5	37.9	37.9				19.0	19.0
Effective Green, g (s)	1.3	30.7			9.5	37.9	37.9				19.0	19.0
Actuated g/C Ratio	0.01	0.34			0.11	0.42	0.42				0.21	0.21
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0				3.5	3.5
Lane Grp Cap (vph)	25	1207			187	1491	634				308	324
v/s Ratio Prot	0.02	0.27			c0.10	c0.34						
v/s Ratio Perm							0.30				0.02	0.01
v/c Ratio	1.16	0.78			0.97	0.80	0.71				0.10	0.06
Uniform Delay, d1	44.3	26.6			40.0	22.7	21.5				28.6	28.3
Progression Factor	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Incremental Delay, d2	233.2	3.9			55.6	3.6	4.7				0.2	0.1
Delay (s)	277.5	30.5			95.6	26.3	26.1				28.7	28.4
Level of Service	F	C			F	C	C				C	C
Approach Delay (s)		37.8				32.8					28.5	
Approach LOS		D				C					C	

Intersection Summary			
HCM 2000 Control Delay	35.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	89.9	Sum of lost time (s)	27.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

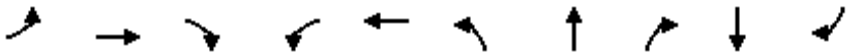


Movement	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	155	5	26	20	5	5	5	5	5	5	5	5
Future Volume (vph)	155	5	26	20	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0				5.0				5.0		
Lane Util. Factor		1.00				1.00				1.00		
Frpb, ped/bikes		1.00				1.00				1.00		
Flpb, ped/bikes		0.99				1.00				1.00		
Frt		0.97				0.93				0.93		
Flt Protected		0.96				0.98				0.98		
Satd. Flow (prot)		1720				1695				1695		
Flt Permitted		0.76				1.00				0.98		
Satd. Flow (perm)		1355				1737				1695		
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	180	6	30	23	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	0	239	0	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)	12		2	2								
Confl. Bikes (#/hr)												
Turn Type	Perm	NA			Perm	Prot			Perm	Prot		
Protected Phases		4				7				3		
Permitted Phases	4				7				3			
Actuated Green, G (s)		19.0				1.9				2.8		
Effective Green, g (s)		19.0				1.9				2.8		
Actuated g/C Ratio		0.21				0.02				0.03		
Clearance Time (s)		5.0				5.0				5.0		
Vehicle Extension (s)		3.5				2.0				1.5		
Lane Grp Cap (vph)		286				36				52		
v/s Ratio Prot												
v/s Ratio Perm		c0.18				c0.01				0.00		
v/c Ratio		0.84				0.56				0.01		
Uniform Delay, d1		34.0				43.6				42.2		
Progression Factor		1.00				1.00				1.00		
Incremental Delay, d2		19.0				10.1				0.0		
Delay (s)		53.0				53.7				42.2		
Level of Service		D				D				D		
Approach Delay (s)		53.0				53.7				42.2		
Approach LOS		D				D				D		

Intersection Summary

Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29673.7	11556.4	0.0	72900.0	24282.5
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2869.7	5032.2	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	42.1	42.1	42.1	42.1	42.1	42.1
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.96	3.46	2.02	1.98	1.86	1.78
Pedestrian Crosswalk LOS	C	C	B	B	B	B

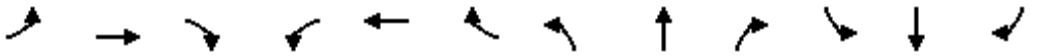
Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	971	1934	124	239	20	20
Effct. Green for Bike (s)	26.3	37.9	19.0	19.0	6.3	7.2
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	501	722	362	362	120	137
Bicycle Delay (s/bike)	29.6	21.6	35.5	35.3	46.4	45.5
Bicycle Compliance	Fair	Fair	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.86	2.25	2.86	2.32	2.62	2.20
Bicycle LOS	C	B	C	B	C	B



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	36	803	470	433	1100	382	390	558	52	29
v/c Ratio	0.37	0.88	0.88	0.85	0.55	0.81	0.83	0.60	0.28	0.09
Control Delay	62.4	51.1	42.8	61.3	28.7	51.5	52.8	7.3	46.2	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	51.1	42.8	61.3	28.7	51.5	52.8	7.3	46.2	0.5
Queue Length 50th (ft)	23	268	190	144	219	241	247	35	33	0
Queue Length 95th (ft)	66	#513	#482	#287	339	#506	#520	148	57	0
Internal Link Dist (ft)		217			575		1379		108	
Turn Bay Length (ft)	145		90	350		150				50
Base Capacity (vph)	104	909	534	509	2016	498	500	931	528	591
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.88	0.88	0.85	0.55	0.77	0.78	0.60	0.10	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	723	423	377	920	37	673	6	491	36	3	22
Future Volume (veh/h)	32	723	423	377	920	37	673	6	491	36	3	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	36	803	470	433	1057	43	770	0	558	48	4	29
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.88	0.88	0.88	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	45	931	406	498	1913	78	1077	0	701	82	7	77
Arrive On Green	0.03	0.26	0.26	0.14	0.38	0.38	0.30	0.00	0.30	0.05	0.05	0.05
Sat Flow, veh/h	1781	3554	1547	3456	5024	204	3563	0	1563	1650	138	1550
Grp Volume(v), veh/h	36	803	470	433	716	384	770	0	558	52	0	29
Grp Sat Flow(s),veh/h/ln	1781	1777	1547	1728	1702	1824	1781	0	1563	1788	0	1550
Q Serve(g_s), s	2.0	21.4	26.0	12.2	16.4	16.4	19.1	0.0	30.0	2.8	0.0	1.8
Cycle Q Clear(g_c), s	2.0	21.4	26.0	12.2	16.4	16.4	19.1	0.0	30.0	2.8	0.0	1.8
Prop In Lane	1.00		1.00	1.00		0.11	1.00		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	45	931	406	498	1297	695	1077	0	701	88	0	77
V/C Ratio(X)	0.80	0.86	1.16	0.87	0.55	0.55	0.71	0.00	0.80	0.59	0.00	0.38
Avail Cap(c_a), veh/h	108	931	406	522	1297	695	1077	0	701	541	0	469
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.1	34.9	36.6	41.5	24.1	24.1	30.8	0.0	23.6	46.2	0.0	45.7
Incr Delay (d2), s/veh	15.5	10.4	95.7	13.6	1.7	3.2	2.1	0.0	6.2	3.8	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	15.2	29.7	9.9	10.7	11.7	12.8	0.0	17.1	2.4	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	45.3	132.4	55.1	25.8	27.2	32.9	0.0	29.8	49.9	0.0	47.5
LnGrp LOS	E	D	F	E	C	C	C	A	C	D	A	D
Approach Vol, veh/h		1309			1533			1328			81	
Approach Delay, s/veh		77.0			34.4			31.6			49.1	
Approach LOS		E			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.3	32.0		10.9	8.5	43.8		36.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	26.0		30.0	6.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	14.2	28.0		4.8	4.0	18.4		32.0				
Green Ext Time (p_c), s	0.1	0.0		0.3	0.0	12.9		0.0				

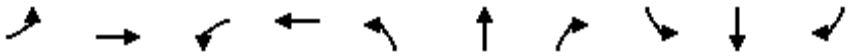
Intersection Summary			
HCM 6th Ctrl Delay		46.9	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	105.0	120.0	90.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	8	5	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	1	0	1	1
Ped. Right-Left Flow Rate (p/h)	0	0	1	2
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	40	25
Right Corner Area per Ped (sq.ft)	29978.3	29978.3	44967.5	22451.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	11702.5	0.0	5433.8	3401.6
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	52.0	52.0	52.0	52.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.30	3.24	2.95	2.01
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	10	15	4	3
Total Flow Rate (veh/h)	1309	1533	1330	81
Effct. Green for Bike (s)	26.5	41.1	28.7	10.8
Cross Street Width (ft)	80.0	55.0	97.0	100.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	424	658	459	173
Bicycle Delay (s/bike)	39.0	28.4	37.2	52.2
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.36	1.96	3.95	1.94
Bicycle LOS	B	B	D	B

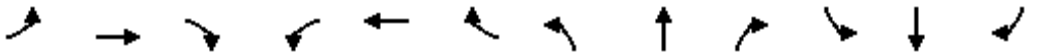


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	1137	180	839	338	343	279	13	22	25
v/c Ratio	0.32	0.60	0.74	0.33	0.82	0.82	0.34	0.09	0.16	0.10
Control Delay	51.6	29.1	50.8	11.1	51.0	51.5	3.0	41.1	42.9	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	29.1	50.8	11.1	51.0	51.5	3.0	41.1	42.9	0.7
Queue Length 50th (ft)	24	230	92	165	205	208	0	8	14	0
Queue Length 95th (ft)	59	#315	m#180	110	#330	#336	37	20	28	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	123	1908	260	2537	444	448	830	268	262	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.60	0.69	0.33	0.76	0.77	0.34	0.05	0.08	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1001	90	173	786	19	559	27	240	10	15	18
Future Volume (veh/h)	37	1001	90	173	786	19	559	27	240	10	15	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	39	1043	94	180	819	20	672	0	279	14	21	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.86	0.86	0.86	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	49	2091	188	209	2754	67	791	0	537	67	66	58
Arrive On Green	0.03	0.44	0.44	0.17	0.72	0.72	0.24	0.00	0.24	0.04	0.04	0.04
Sat Flow, veh/h	1781	4754	428	1668	5122	125	3337	0	1479	1781	1752	1549
Grp Volume(v), veh/h	39	746	391	180	544	295	672	0	279	14	21	25
Grp Sat Flow(s),veh/h/ln	1781	1702	1777	1668	1702	1843	1668	0	1479	1781	1752	1549
Q Serve(g_s), s	2.2	15.7	15.8	10.5	5.8	5.8	19.2	0.0	14.8	0.8	1.2	1.6
Cycle Q Clear(g_c), s	2.2	15.7	15.8	10.5	5.8	5.8	19.2	0.0	14.8	0.8	1.2	1.6
Prop In Lane	1.00		0.24	1.00		0.07	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	1497	782	209	1830	991	791	0	537	67	66	58
V/C Ratio(X)	0.79	0.50	0.50	0.86	0.30	0.30	0.85	0.00	0.52	0.21	0.32	0.43
Avail Cap(c_a), veh/h	107	1497	782	250	1830	991	901	0	586	285	280	248
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.70	0.70	0.70	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	20.1	20.1	40.8	7.4	7.4	36.5	0.0	25.0	46.7	46.9	47.1
Incr Delay (d2), s/veh	19.3	0.9	1.8	16.4	0.3	0.5	7.0	0.0	0.8	1.5	2.7	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	9.7	10.4	8.1	3.4	3.8	13.3	0.0	9.0	0.7	1.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	21.0	21.9	57.2	7.7	8.0	43.5	0.0	25.8	48.2	49.6	51.9
LnGrp LOS	E	C	C	E	A	A	D	A	C	D	D	D
Approach Vol, veh/h		1176			1019			951			60	
Approach Delay, s/veh		22.9			16.5			38.3			50.2	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.6	48.0		7.8	6.8	57.8		27.7				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	15.0	26.0		16.0	6.0	35.0		27.0				
Max Q Clear Time (g_c+I1), s	12.5	17.8		3.6	4.2	7.8		21.2				
Green Ext Time (p_c), s	0.1	4.5		0.1	0.0	6.1		2.5				

Intersection Summary			
HCM 6th Ctrl Delay		25.9	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	88.4	95.5	49.4	54.8
Crosswalk Width (ft)	10.0	10.0	10.0	10.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	11.0	11.0	10.0	15.0
Right Corner Size B (ft)	10.0	11.0	11.0	14.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	110.00	121.00	110.00	210.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	0
Ped. Right-Left Flow Rate (p/h)	1	0	3	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	3
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	12355.6	0.0	19768.9	31482.7
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	3316.1	0.0	1593.1	0.0
Crosswalk Circulation Code	A	-	A	-
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.04	2.99	2.80	2.19
Pedestrian Crosswalk LOS	C	C	C	B

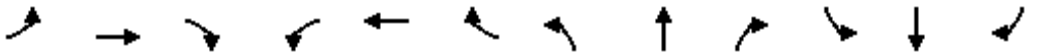
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	8	9	1	5
Total Flow Rate (veh/h)	1176	1019	960	60
Effct. Green for Bike (s)	38.2	50.1	26.6	8.4
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	764	1002	532	168
Bicycle Delay (s/bike)	19.2	12.5	27.0	42.1
Bicycle Compliance	Fair	Fair	Fair	Poor
Bicycle LOS Score	1.91	1.83	3.48	2.97
Bicycle LOS	B	B	C	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	590	751	1236	131	152
v/c Ratio	1.03	0.28	0.68	0.49	0.38
Control Delay	95.2	15.1	21.1	41.8	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	95.2	15.1	21.1	41.8	4.1
Queue Length 50th (ft)	~198	210	256	80	0
Queue Length 95th (ft)	#328	304	#561	106	21
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	572	2673	1808	557	623
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.03	0.28	0.68	0.24	0.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	549	698	0	0	870	267	124	0	144	0	0	0
Future Volume (veh/h)	549	698	0	0	870	267	124	0	144	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	590	751	0	0	946	290	131	0	152			
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.95	0.95	0.95			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1237	2780	0	0	960	293	230	0	201			
Arrive On Green	0.76	1.00	0.00	0.00	0.36	0.36	0.14	0.00	0.14			
Sat Flow, veh/h	3237	3647	0	0	2761	814	1668	0	1461			
Grp Volume(v), veh/h	590	751	0	0	629	607	131	0	152			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1705	1668	0	1461			
Q Serve(g_s), s	6.8	0.0	0.0	0.0	35.1	35.4	7.3	0.0	10.0			
Cycle Q Clear(g_c), s	6.8	0.0	0.0	0.0	35.1	35.4	7.3	0.0	10.0			
Prop In Lane	1.00		0.00	0.00		0.48	1.00		1.00			
Lane Grp Cap(c), veh/h	1237	2780	0	0	640	614	230	0	201			
V/C Ratio(X)	0.48	0.27	0.00	0.00	0.98	0.99	0.57	0.00	0.75			
Avail Cap(c_a), veh/h	1237	2780	0	0	640	614	567	0	497			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.82	0.82	0.00	0.00	0.75	0.75	1.00	0.00	1.00			
Uniform Delay (d), s/veh	8.1	0.0	0.0	0.0	31.7	31.8	40.3	0.0	41.5			
Incr Delay (d2), s/veh	0.2	0.2	0.0	0.0	27.0	29.0	2.2	0.0	5.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	3.1	0.1	0.0	0.0	25.3	24.9	5.6	0.0	7.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.3	0.2	0.0	0.0	58.7	60.8	42.5	0.0	47.1			
LnGrp LOS	A	A	A	A	E	E	D	A	D			
Approach Vol, veh/h		1341			1236			283				
Approach Delay, s/veh		3.8			59.7			45.0				
Approach LOS		A			E			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		82.2			42.2	40.0		17.8				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			18.0	36.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			8.8	37.4		12.0				
Green Ext Time (p_c), s		6.3			2.0	0.0		1.5				
Intersection Summary												
HCM 6th Ctrl Delay			32.0									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	73.5	41.5	30.4
Crosswalk Width (ft)	10.0	11.0	10.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	8.0	9.0	19.0	0.1
Right Corner Size B (ft)	9.0	10.0	19.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	72.00	90.00	361.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	2	0
Ped. Right-Left Flow Rate (p/h)	0	1	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21565.5	40474.1	81212.1	-53.5
Right Corner Quality of Service	A	A	A	F
Ped. Circulation Area (sq.ft)	0.0	7459.0	2974.4	0.3
Crosswalk Circulation Code	-	A	A	F
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.93	2.77	1.98	2.16
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	11	1	1
Total Flow Rate (veh/h)	1341	1236	283	0
Effct. Green for Bike (s)	75.6	53.6	16.4	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1512	1072	328	0
Bicycle Delay (s/bike)	3.0	10.8	35.0	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.22	2.06	2.19	0.00
Bicycle LOS	B	B	B	

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	1	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	404	232	1277	873
Demand Flow Rate, veh/h	412	236	1303	890
Vehicles Circulating, veh/h	764	1446	190	386
Vehicles Exiting, veh/h	512	47	986	1296
Ped Vol Crossing Leg, #/h	5	5	0	0
Ped Cap Adj	0.999	1.000	1.000	1.000
Approach Delay, s/veh	13.8	22.7	9.8	9.0
Approach LOS	B	C	A	A

Lane	Left	Left	Left	Right	Left	Right
Designated Moves	LTR	LTR	LT	TR	LT	TR
Assumed Moves	LTR	LTR	LT	TR	LT	TR
RT Channelized						
Lane Util	1.000	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	412	236	612	691	418	472
Cap Entry Lane, veh/h	742	415	1133	1208	946	1023
Entry HV Adj Factor	0.980	0.981	0.981	0.979	0.981	0.980
Flow Entry, veh/h	404	232	600	677	410	462
Cap Entry, veh/h	727	407	1111	1183	929	1002
V/C Ratio	0.556	0.568	0.540	0.572	0.442	0.461
Control Delay, s/veh	13.8	22.7	9.7	9.9	9.1	8.9
LOS	B	C	A	A	A	A
95th %tile Queue, veh	3	3	3	4	2	2

Intersection	
Intersection Delay, s/veh	3.6
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	33	176	135	17
Demand Flow Rate, veh/h	33	180	138	17
Vehicles Circulating, veh/h	156	15	35	177
Vehicles Exiting, veh/h	38	157	154	18
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.3	3.8	3.6	3.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	33	180	138	17
Cap Entry Lane, veh/h	1177	1359	1331	1152
Entry HV Adj Factor	0.986	0.980	0.978	0.994
Flow Entry, veh/h	33	176	135	17
Cap Entry, veh/h	1161	1332	1302	1145
V/C Ratio	0.028	0.132	0.104	0.015
Control Delay, s/veh	3.3	3.8	3.6	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Lane Group	EBT	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	4	246	137	339	619	430	672
v/c Ratio	0.01	0.60	0.09	0.61	0.69	1.15	0.62
Control Delay	0.0	34.1	0.1	28.2	6.7	126.7	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	34.1	0.1	28.2	6.7	126.7	14.8
Queue Length 50th (ft)	0	94	0	122	0	~221	165
Queue Length 95th (ft)	0	201	0	233	31	#583	413
Internal Link Dist (ft)	160	615		469			438
Turn Bay Length (ft)			180		370	490	
Base Capacity (vph)	748	849	1583	1416	1317	373	1641
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.29	0.09	0.24	0.47	1.15	0.41

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	200	2	112	0	271	495	370	577	1
Future Volume (veh/h)	0	0	1	200	2	112	0	271	495	370	577	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	4	244	2	0	0	339	0	430	671	1
Peak Hour Factor	0.25	0.25	0.25	0.82	0.82	0.82	0.80	0.80	0.80	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	7	320	3		3	434		421	1021	2
Arrive On Green	0.00	0.00	0.00	0.18	0.18	0.00	0.00	0.23	0.00	0.24	0.55	0.55
Sat Flow, veh/h	0	0	1585	1767	14	1585	1781	1870	1585	1781	1867	3
Grp Volume(v), veh/h	0	0	4	246	0	0	0	339	0	430	0	672
Grp Sat Flow(s),veh/h/ln	0	0	1585	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.2	8.3	0.0	0.0	0.0	10.8	0.0	15.0	0.0	16.1
Cycle Q Clear(g_c), s	0.0	0.0	0.2	8.3	0.0	0.0	0.0	10.8	0.0	15.0	0.0	16.1
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	7	323	0		3	434		421	0	1023
V/C Ratio(X)	0.00	0.00	0.59	0.76	0.00		0.00	0.78		1.02	0.00	0.66
Avail Cap(c_a), veh/h	0	0	674	954	0		112	1591		421	0	1590
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	31.6	24.7	0.0	0.0	0.0	22.9	0.0	24.3	0.0	10.2
Incr Delay (d2), s/veh	0.0	0.0	61.3	3.7	0.0	0.0	0.0	3.1	0.0	49.6	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.3	6.2	0.0	0.0	0.0	7.8	0.0	16.8	0.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	92.9	28.5	0.0	0.0	0.0	26.0	0.0	73.8	0.0	10.9
LnGrp LOS	A	A	F	C	A		A	C		F	A	B
Approach Vol, veh/h		4			246	A		339	A		1102	
Approach Delay, s/veh		92.9			28.5			26.0			35.4	
Approach LOS		F			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	20.7		5.3	0.0	40.7		17.5				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	54.0		27.0	4.0	54.0		34.0				
Max Q Clear Time (g_c+I1), s	17.0	12.8		2.2	0.0	18.1		10.3				
Green Ext Time (p_c), s	0.0	1.9		0.0	0.0	4.6		1.3				

Intersection Summary			
HCM 6th Ctrl Delay		32.7	
HCM 6th LOS		C	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	76.0	67.3	67.3	76.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.50	2.76	2.83
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	14	8
Total Flow Rate (veh/h)	4	383	958	1102
Effct. Green for Bike (s)	5.7	17.1	22.2	43.1
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	75	225	292	567
Bicycle Delay (s/bike)	70.4	59.9	55.8	39.2
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.71	3.34	2.92	2.73
Bicycle LOS	C	C	C	C

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	156	53	565	967	7
Future Vol, veh/h	20	156	53	565	967	7
Conflicting Peds, #/hr	1	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	80	80	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	175	66	706	1099	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1591	556	1109	0	-	0
Stage 1	1105	-	-	-	-	-
Stage 2	486	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	98	475	625	-	-	-
Stage 1	279	-	-	-	-	-
Stage 2	584	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	87	474	624	-	-	-
Mov Cap-2 Maneuver	87	-	-	-	-	-
Stage 1	249	-	-	-	-	-
Stage 2	583	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	21.9	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	624	-	87	474	-	-
HCM Lane V/C Ratio	0.106	-	0.258	0.37	-	-
HCM Control Delay (s)	11.5	-	60.2	17	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.4	-	0.9	1.7	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	141182.8	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	1532	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.94	
Delay for adq Gap	141185.13	
Avg Ped Delay (s)	141182.78	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	265.1	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	967	565
Ped Vol Crossed	1	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.99	0.84
Prob of Blocked Lane	0.88	0.60
Delay for adq Gap	247.37	25.35
Avg Ped Delay (s)	243.88	21.23

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	571	196	715	444	91	1127
v/c Ratio	0.53	0.33	0.49	0.52	0.25	0.60
Control Delay	24.8	5.4	20.5	4.4	11.4	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	5.4	20.5	4.4	11.4	14.4
Queue Length 50th (ft)	129	0	154	0	23	205
Queue Length 95th (ft)	86	0	156	9	45	264
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1353	686	1724	930	466	2432
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.29	0.41	0.48	0.20	0.46

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	274	94	508	315	84	1037
Future Volume (veh/h)	274	94	508	315	84	1037
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.94	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	571	196	715	444	91	1127
Peak Hour Factor	0.48	0.48	0.71	0.71	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	818	375	1594	665	351	2104
Arrive On Green	0.24	0.24	0.45	0.45	0.05	0.59
Sat Flow, veh/h	3456	1585	3647	1483	1781	3647
Grp Volume(v), veh/h	571	196	715	444	91	1127
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1483	1781	1777
Q Serve(g_s), s	9.7	6.9	8.9	15.1	1.6	12.2
Cycle Q Clear(g_c), s	9.7	6.9	8.9	15.1	1.6	12.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	818	375	1594	665	351	2104
V/C Ratio(X)	0.70	0.52	0.45	0.67	0.26	0.54
Avail Cap(c_a), veh/h	1452	666	1936	808	594	2710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	21.4	12.2	13.9	8.6	7.8
Incr Delay (d2), s/veh	1.1	1.1	0.4	2.9	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.0	10.4	5.8	8.6	0.9	5.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.5	22.5	12.7	16.8	8.8	8.2
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	767		1159			1218
Approach Delay, s/veh	23.2		14.3			8.3
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		44.0		20.2	9.2	34.8
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		49.0		27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		14.2		11.7	3.6	17.1
Green Ext Time (p_c), s		16.9		3.5	0.1	11.7

Intersection Summary	
HCM 6th Ctrl Delay	14.1
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	65.0	80.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None	Actuated
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	8.0	0.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	7.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	26	0	4
Ped. Right-Left Flow Rate (p/h)	3	0	81
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	5170.9	20296.0	6893.9
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	434.9	0.0	151.4
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	37.9	45.5	37.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.40	2.87	2.93
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	17	6
Total Flow Rate (veh/h)	767	1159	1218
Effct. Green for Bike (s)	24.7	31.9	41.5
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	543	701	912
Bicycle Delay (s/bike)	24.2	19.4	13.5
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	3.26	1.99	1.54
Bicycle LOS	C	B	B

Intersection	
Int Delay, s/veh	5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	51	774	85	95	1237
Future Vol, veh/h	26	51	774	85	95	1237
Conflicting Peds, #/hr	0	0	0	22	22	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	71	71	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	74	1090	120	113	1473

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2135	627	0	0	1232	0
Stage 1	1172	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	58	365	-	-	302	-
Stage 1	194	-	-	-	-	-
Stage 2	323	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 35	357	-	-	296	-
Mov Cap-2 Maneuver	~ 35	-	-	-	-	-
Stage 1	190	-	-	-	-	-
Stage 2	200	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	129.6	0	1.7
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	35	357	296	-
HCM Lane V/C Ratio	-	-	1.077	0.207	0.382	-
HCM Control Delay (s)	-	-	$ 349	17.7	24.5	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	3.9	0.8	1.7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	1254.3	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	774	1237
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	0.98	1.00
Prob of Blocked Lane	0.71	0.95
Delay for adq Gap	173.53	1087.90
Avg Ped Delay (s)	169.31	1085.03

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	16558617.0
Level of Service	F

Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2011
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	16558619.00
Avg Ped Delay (s)	16558617.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	60	130	155	10	59	1071	17	1482	24
v/c Ratio	0.16	0.24	0.42	0.02	0.20	0.39	0.05	1.07	0.04
Control Delay	20.3	2.8	25.0	0.0	10.9	12.6	10.4	72.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	2.8	25.0	0.0	10.9	12.6	10.4	72.6	0.1
Queue Length 50th (ft)	21	0	58	0	14	120	4	~507	0
Queue Length 95th (ft)	45	15	68	0	28	167	12	#577	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	466	634	456	622	538	2846	429	1383	685
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.21	0.34	0.02	0.11	0.38	0.04	1.07	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	14	108	78	15	6	47	820	26	14	1230	20
Future Volume (veh/h)	36	14	108	78	15	6	47	820	26	14	1230	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.94	0.98		0.95	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	17	130	130	25	10	59	1038	33	17	1482	24
Peak Hour Factor	0.83	0.83	0.83	0.60	0.60	0.60	0.79	0.79	0.79	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	21	431	96	10	438	210	2367	75	299	1494	638
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.06	0.47	0.47	0.01	0.42	0.42
Sat Flow, veh/h	0	74	1488	0	36	1511	1781	5077	161	1781	3554	1518
Grp Volume(v), veh/h	60	0	130	155	0	10	59	696	375	17	1482	24
Grp Sat Flow(s),veh/h/ln	74	0	1488	36	0	1511	1781	1702	1834	1781	1777	1518
Q Serve(g_s), s	0.0	0.0	4.7	0.0	0.0	0.3	1.2	9.5	9.5	0.4	28.6	0.6
Cycle Q Clear(g_c), s	20.0	0.0	4.7	20.0	0.0	0.3	1.2	9.5	9.5	0.4	28.6	0.6
Prop In Lane	0.72		1.00	0.84		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	431	106	0	438	210	1587	855	299	1494	638
V/C Ratio(X)	0.54	0.00	0.30	1.46	0.00	0.02	0.28	0.44	0.44	0.06	0.99	0.04
Avail Cap(c_a), veh/h	111	0	431	106	0	438	623	1587	855	535	1494	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	19.1	32.6	0.0	17.5	15.8	12.4	12.4	11.5	19.9	11.8
Incr Delay (d2), s/veh	6.6	0.0	0.5	250.2	0.0	0.0	1.5	0.3	0.6	0.1	21.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	0.0	2.9	16.5	0.0	0.2	0.9	5.4	5.9	0.2	20.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	19.6	282.7	0.0	17.5	17.3	12.7	13.0	11.6	41.3	11.8
LnGrp LOS	C	A	B	F	A	B	B	B	B	B	D	B
Approach Vol, veh/h		190			165			1130			1523	
Approach Delay, s/veh		24.2			266.7			13.0			40.5	
Approach LOS		C			F			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	35.0		25.0	5.8	38.2		25.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	29.0		20.0	10.0	29.0		20.0				
Max Q Clear Time (g_c+I1), s	3.2	30.6		22.0	2.4	11.5		22.0				
Green Ext Time (p_c), s	0.3	0.0		0.0	0.0	9.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		41.6	
HCM 6th LOS		D	

Notes

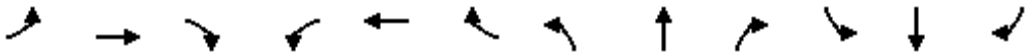
User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	4	12	0	8
Ped. Right-Left Flow Rate (p/h)	4	2	0	37
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73706.7	9989.4	42095.1	11094.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2301.5	1312.9	0.0	278.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	2.00	3.16	3.14
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	190	165	1130	1523
Effct. Green for Bike (s)	20.9	20.9	41.7	29.6
Cross Street Width (ft)	84.5	96.0	36.1	37.9
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	492	492	981	696
Bicycle Delay (s/bike)	24.2	24.2	11.0	18.1
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.17	3.30	2.73	2.32
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	136	221	187	192	183	59	560	209	572	1021
v/c Ratio	0.48	0.74	0.31	0.61	0.45	0.48	0.48	0.29	0.63	0.65
Control Delay	49.1	58.3	43.1	41.9	10.4	66.8	38.9	5.3	40.2	27.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	58.3	43.1	41.9	10.4	66.8	38.9	5.3	40.2	27.6
Queue Length 50th (ft)	94	153	63	104	0	43	137	11	188	313
Queue Length 95th (ft)	133	198	94	175	50	88	169	50	280	424
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	407	419	691	357	438	152	1511	740	1008	1713
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.53	0.27	0.54	0.42	0.39	0.37	0.28	0.57	0.60

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	130	40	155	66	245	51	487	182	515	865	54
Future Volume (veh/h)	105	130	40	155	66	245	51	487	182	515	865	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	136	169	52	187	241	188	59	560	209	572	961	60
Peak Hour Factor	0.77	0.77	0.77	0.83	0.83	0.83	0.87	0.87	0.87	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	294	224	69	632	332	272	76	1164	630	853	1463	91
Arrive On Green	0.16	0.16	0.16	0.18	0.18	0.18	0.04	0.23	0.23	0.25	0.43	0.43
Sat Flow, veh/h	1781	1356	417	3563	1870	1533	1781	5106	1529	3456	3386	211
Grp Volume(v), veh/h	136	0	221	187	241	188	59	560	209	572	504	517
Grp Sat Flow(s),veh/h/ln	1781	0	1773	1781	1870	1533	1781	1702	1529	1728	1777	1820
Q Serve(g_s), s	6.8	0.0	11.7	4.5	12.0	11.3	3.2	9.4	9.3	14.7	22.1	22.2
Cycle Q Clear(g_c), s	6.8	0.0	11.7	4.5	12.0	11.3	3.2	9.4	9.3	14.7	22.1	22.2
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	294	0	293	632	332	272	76	1164	630	853	768	787
V/C Ratio(X)	0.46	0.00	0.76	0.30	0.73	0.69	0.78	0.48	0.33	0.67	0.66	0.66
Avail Cap(c_a), veh/h	434	0	432	760	399	327	163	1608	763	1018	921	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.1	0.0	39.2	35.1	38.2	38.0	46.6	32.9	20.2	33.4	22.2	22.2
Incr Delay (d2), s/veh	0.8	0.0	3.3	0.9	11.0	11.3	6.2	1.4	1.4	3.4	4.4	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.4	0.0	9.1	3.5	10.3	8.5	2.7	6.9	8.0	10.3	14.3	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	0.0	42.5	36.1	49.2	49.2	52.8	34.4	21.6	36.9	26.5	26.4
LnGrp LOS	D	A	D	D	D	D	D	C	C	D	C	C
Approach Vol, veh/h		357			616			828			1593	
Approach Delay, s/veh		40.8			45.2			32.5			30.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.2	8.2	46.5		22.5	28.3	26.4				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	9.0	51.0		21.0	29.0	31.0				
Max Q Clear Time (g_c+I1), s		13.7	5.2	24.2		14.0	16.7	11.4				
Green Ext Time (p_c), s		1.1	0.0	18.4		3.5	4.9	11.1				

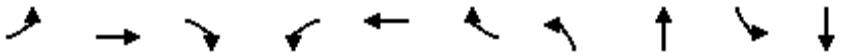
Intersection Summary												
HCM 6th Ctrl Delay			34.6									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	2
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	7	3	5
Ped. Right-Left Flow Rate (p/h)	3	9	2	7
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53583.8	21032.3	2458.1	32730.7
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1647.1	593.9	1233.7	586.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	51.0	51.0	53.8	53.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.14	3.00	3.04	3.41
Pedestrian Crosswalk LOS	B	C	C	C

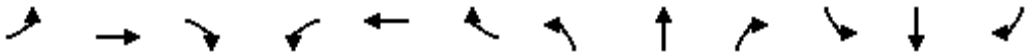
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	5	12	6
Total Flow Rate (veh/h)	357	562	828	1593
Effct. Green for Bike (s)	17.5	18.7	24.6	48.2
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	285	304	400	784
Bicycle Delay (s/bike)	45.4	44.3	39.6	22.8
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.42	3.68	1.72	2.92
Bicycle LOS	C	D	B	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	111	27	106	163	24	94	258	795	46	1047
v/c Ratio	0.47	0.14	0.31	0.37	0.08	0.24	0.59	0.32	0.23	0.57
Control Delay	45.0	30.8	2.3	33.7	24.3	2.5	38.8	14.0	39.8	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	30.8	2.3	33.7	24.3	2.5	38.8	14.0	39.8	20.7
Queue Length 50th (ft)	24	11	0	33	9	0	54	74	9	119
Queue Length 95th (ft)	#68	30	0	52	18	0	#124	158	32	253
Internal Link Dist (ft)		461			455			697		1255
Turn Bay Length (ft)	240		240	300		200	300		200	
Base Capacity (vph)	235	193	346	1716	931	850	454	2518	201	1992
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.14	0.31	0.09	0.03	0.11	0.57	0.32	0.23	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	22	86	101	15	58	217	629	39	44	876	119
Future Volume (veh/h)	90	22	86	101	15	58	217	629	39	44	876	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	27	106	163	24	94	258	749	46	46	922	125
Peak Hour Factor	0.81	0.81	0.81	0.62	0.62	0.62	0.84	0.84	0.84	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	260	215	301	308	256	364	2051	125	120	1572	212
Arrive On Green	0.06	0.14	0.14	0.09	0.16	0.16	0.11	0.42	0.42	0.03	0.35	0.35
Sat Flow, veh/h	3456	1870	1551	3456	1870	1556	3456	4913	300	3456	4535	612
Grp Volume(v), veh/h	111	27	106	163	24	94	258	518	277	46	691	356
Grp Sat Flow(s),veh/h/ln	1728	1870	1551	1728	1870	1556	1728	1702	1810	1728	1702	1743
Q Serve(g_s), s	2.0	0.8	4.1	2.9	0.7	3.5	4.7	6.8	6.9	0.8	10.9	10.9
Cycle Q Clear(g_c), s	2.0	0.8	4.1	2.9	0.7	3.5	4.7	6.8	6.9	0.8	10.9	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		0.35
Lane Grp Cap(c), veh/h	212	260	215	301	308	256	364	1421	756	120	1180	604
V/C Ratio(X)	0.52	0.10	0.49	0.54	0.08	0.37	0.71	0.36	0.37	0.38	0.59	0.59
Avail Cap(c_a), veh/h	212	260	215	1800	974	811	477	1669	887	212	1408	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	24.6	26.0	28.5	23.1	24.2	28.2	13.1	13.1	30.8	17.5	17.5
Incr Delay (d2), s/veh	2.3	0.2	1.7	1.5	0.1	0.9	3.3	0.5	0.9	2.0	1.3	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.7	2.8	2.2	0.6	2.4	3.5	4.0	4.4	0.6	6.9	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	24.7	27.7	30.0	23.2	25.1	31.5	13.5	13.9	32.8	18.8	20.1
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	C
Approach Vol, veh/h		244			281			1053			1093	
Approach Delay, s/veh		29.4			27.8			18.0			19.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	28.6	10.7	14.1	7.3	33.2	9.0	15.8
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	9.0	27.0	34.0	4.0	4.0	32.0	4.0	34.0
Max Q Clear Time (g_c+I1), s	6.7	12.9	4.9	6.1	2.8	8.9	4.0	5.5
Green Ext Time (p_c), s	0.2	9.5	0.7	0.0	0.0	10.4	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	20.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	100.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	6	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	30.0	30.0	30.0	30.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	6	3	1	6
Ped. Right-Left Flow Rate (p/h)	1	1	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73713.4	42105.3	117933.8	34666.4
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1398.2	3211.5	0.1	1249.3
Crosswalk Circulation Code	A	A	F	A
Pedestrian Delay (s/p)	38.9	38.9	47.5	38.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.63	2.55	3.15	3.12
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	1	0	4
Total Flow Rate (veh/h)	244	281	1053	1093
Effct. Green for Bike (s)	7.3	11.9	35.3	26.0
Cross Street Width (ft)	100.0	99.0	68.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	154	251	743	547
Bicycle Delay (s/bike)	40.5	36.4	18.8	25.1
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	3.49	2.25	1.89	1.79
Bicycle LOS	C	B	B	B

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	40	39	1227	37	1147
v/c Ratio	0.15	0.14	0.47	0.16	0.40
Control Delay	25.1	11.4	7.0	27.1	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	11.4	7.0	27.1	3.4
Queue Length 50th (ft)	11	0	75	10	68
Queue Length 95th (ft)	31	15	187	40	109
Internal Link Dist (ft)	233		1200		376
Turn Bay Length (ft)		175		100	
Base Capacity (vph)	1339	1207	2787	238	3216
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.03	0.03	0.44	0.16	0.36

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	28	27	910	96	35	1078
Future Volume (veh/h)	28	27	910	96	35	1078
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	39	1110	117	37	1147
Peak Hour Factor	0.70	0.70	0.82	0.82	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	151	134	1723	181	88	2435
Arrive On Green	0.08	0.08	0.53	0.53	0.05	0.69
Sat Flow, veh/h	1781	1585	3326	340	1781	3647
Grp Volume(v), veh/h	40	39	609	618	37	1147
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1796	1781	1777
Q Serve(g_s), s	0.9	1.0	10.7	10.7	0.9	6.6
Cycle Q Clear(g_c), s	0.9	1.0	10.7	10.7	0.9	6.6
Prop In Lane	1.00	1.00		0.19	1.00	
Lane Grp Cap(c), veh/h	151	134	947	957	88	2435
V/C Ratio(X)	0.27	0.29	0.64	0.65	0.42	0.47
Avail Cap(c_a), veh/h	1421	1265	1592	1609	248	4043
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.8	18.8	7.3	7.3	20.2	3.2
Incr Delay (d2), s/veh	0.9	1.2	0.7	0.7	3.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	0.7	3.9	3.9	0.7	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.7	20.0	8.0	8.0	23.4	3.4
LnGrp LOS	B	C	A	A	C	A
Approach Vol, veh/h	79		1227			1184
Approach Delay, s/veh	19.9		8.0			4.0
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.7	28.8			35.5	8.4
Change Period (Y+Rc), s	4.5	5.4			5.4	4.7
Max Green Setting (Gmax), s	6.1	39.3			49.9	35.0
Max Q Clear Time (g_c+I1), s	2.9	12.7			8.6	3.0
Green Ext Time (p_c), s	0.0	9.0			10.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	6.5
HCM 6th LOS	A

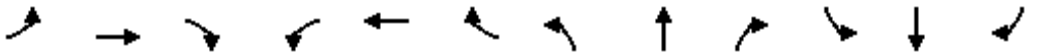
Approach	WB	NB	SB
Crosswalk Length (ft)	35.9	59.9	60.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	47.5	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	3.03	2.99
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	79	1227	1184
Effct. Green for Bike (s)	7.4	37.0	40.3
Cross Street Width (ft)	60.1	35.9	59.9
Through Lanes Number	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	156	779	848
Bicycle Delay (s/bike)	40.4	17.7	15.7
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	2.61	3.12	3.45
Bicycle LOS	C	C	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	9	92	68	69	53	1231	72	38	961	35
v/c Ratio	0.23	0.04	0.33	0.38	0.27	0.12	0.49	0.06	0.11	0.39	0.03
Control Delay	36.0	29.7	9.4	40.6	12.2	2.6	6.7	1.0	6.0	10.3	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0
Total Delay	36.0	29.7	9.4	40.6	12.2	2.6	6.9	1.0	6.0	10.4	0.2
Queue Length 50th (ft)	23	5	0	40	5	1	31	0	3	111	0
Queue Length 95th (ft)	28	10	13	53	25	m7	427	m13	24	306	2
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	446	627	594	471	578	501	2535	1131	405	2474	1113
Starvation Cap Reductn	0	0	0	0	0	0	506	0	0	0	0
Spillback Cap Reductn	0	0	9	0	0	0	0	0	0	293	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.01	0.16	0.14	0.12	0.11	0.61	0.06	0.09	0.44	0.03

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	6	61	54	6	49	44	1022	60	37	932	34
Future Volume (veh/h)	26	6	61	54	6	49	44	1022	60	37	932	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	9	0	68	8	61	53	1231	72	38	961	35
Peak Hour Factor	0.66	0.66	0.66	0.80	0.80	0.80	0.83	0.83	0.83	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	179		204	18	136	476	2497	1090	429	2475	1088
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.08	1.00	1.00	0.03	0.70	0.70
Sat Flow, veh/h	1329	1870	1585	1402	187	1422	1781	3554	1551	1781	3554	1562
Grp Volume(v), veh/h	39	9	0	68	0	69	53	1231	72	38	961	35
Grp Sat Flow(s),veh/h/ln	1329	1870	1585	1402	0	1609	1781	1777	1551	1781	1777	1562
Q Serve(g_s), s	2.7	0.4	0.0	4.4	0.0	3.8	0.8	0.0	0.0	0.6	10.7	0.7
Cycle Q Clear(g_c), s	6.6	0.4	0.0	4.8	0.0	3.8	0.8	0.0	0.0	0.6	10.7	0.7
Prop In Lane	1.00		1.00	1.00		0.88	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	179		204	0	154	476	2497	1090	429	2475	1088
V/C Ratio(X)	0.26	0.05		0.33	0.00	0.45	0.11	0.49	0.07	0.09	0.39	0.03
Avail Cap(c_a), veh/h	470	630		542	0	542	575	2497	1090	539	2475	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.79	0.79	0.79	0.93	0.93	0.93
Uniform Delay (d), s/veh	43.7	39.0	0.0	41.2	0.0	40.6	3.9	0.0	0.0	3.5	6.0	4.5
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.4	0.0	0.8	0.0	0.6	0.1	0.1	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.3	0.0	2.8	0.0	2.8	0.3	0.3	0.1	0.3	5.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.0	39.1	0.0	41.6	0.0	41.3	3.9	0.6	0.1	3.6	6.4	4.5
LnGrp LOS	D	D		D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		48	A		137			1356			1034	
Approach Delay, s/veh		43.1			41.5			0.7			6.3	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	72.2		14.1	8.2	72.8		14.1				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	9.0	38.0		32.0	9.0	38.0		32.0				
Max Q Clear Time (g_c+I1), s	2.8	12.7		6.8	2.6	2.0		8.6				
Green Ext Time (p_c), s	0.0	16.3		0.2	0.0	26.6		0.0				

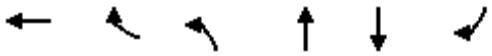
Intersection Summary			
HCM 6th Ctrl Delay		5.9	
HCM 6th LOS		A	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	12600.0	0.0	589765.2
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	10980.0
Crosswalk Circulation Code	-	-	-	A
Pedestrian Delay (s/p)	39.8	39.8	39.8	39.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.49	2.10	3.18	3.05
Pedestrian Crosswalk LOS	B	B	C	C

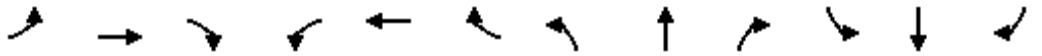
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	4
Total Flow Rate (veh/h)	140	137	1356	1034
Effct. Green for Bike (s)	12.0	12.0	68.1	66.4
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	253	253	1434	1398
Bicycle Delay (s/bike)	36.3	36.3	3.8	4.3
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.11	3.16	1.71	1.92
Bicycle LOS	C	C	B	B



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	533	287	51	1110	854	401
v/c Ratio	0.82	0.46	0.41	0.61	0.58	0.53
Control Delay	36.6	17.4	55.3	11.3	23.3	8.8
Queue Delay	0.0	0.0	0.0	0.4	0.5	0.4
Total Delay	36.6	17.4	55.3	11.7	23.9	9.2
Queue Length 50th (ft)	275	91	26	167	227	43
Queue Length 95th (ft)	318	125	m48	233	201	98
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	762	716	129	1811	1463	760
Starvation Cap Reductn	0	0	0	0	246	95
Spillback Cap Reductn	0	4	0	244	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.40	0.40	0.71	0.70	0.60

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



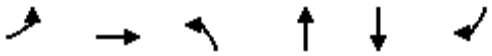
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	429	8	235	43	932	0	0	769	361
Future Volume (veh/h)	0	0	0	429	8	235	43	932	0	0	769	361
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				523	10	287	51	1110	0	0	854	401
Peak Hour Factor				0.82	0.82	0.82	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				598	11	542	64	1919	0	0	1634	665
Arrive On Green				0.37	0.37	0.37	0.04	0.54	0.00	0.00	0.92	0.92
Sat Flow, veh/h				1639	31	1485	1668	3647	0	0	3647	1447
Grp Volume(v), veh/h				533	0	287	51	1110	0	0	854	401
Grp Sat Flow(s),veh/h/ln				1670	0	1485	1668	1777	0	0	1777	1447
Q Serve(g_s), s				28.3	0.0	14.5	2.9	19.8	0.0	0.0	3.5	4.7
Cycle Q Clear(g_c), s				28.3	0.0	14.5	2.9	19.8	0.0	0.0	3.5	4.7
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				610	0	542	64	1919	0	0	1634	665
V/C Ratio(X)				0.87	0.00	0.53	0.80	0.58	0.00	0.00	0.52	0.60
Avail Cap(c_a), veh/h				773	0	688	123	1919	0	0	1634	665
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.83	0.83	0.00	0.00	0.93	0.93
Uniform Delay (d), s/veh				28.1	0.0	23.7	45.3	14.6	0.0	0.0	2.2	2.3
Incr Delay (d2), s/veh				9.1	0.0	0.8	17.2	1.1	0.0	0.0	1.1	3.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				18.2	0.0	8.7	2.6	11.2	0.0	0.0	1.7	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.2	0.0	24.5	62.5	15.7	0.0	0.0	3.3	6.0
LnGrp LOS				D	A	C	E	B	A	A	A	A
Approach Vol, veh/h					820			1161			1255	
Approach Delay, s/veh					32.7			17.7			4.2	
Approach LOS					C			B			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	7.6	48.7				56.3		38.7				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	7.0	31.0				42.0		44.0				
Max Q Clear Time (g_c+I1), s	4.9	6.7				21.8		30.3				
Green Ext Time (p_c), s	0.0	8.3				7.7		4.4				

Intersection Summary		
HCM 6th Ctrl Delay		16.3
HCM 6th LOS		B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.95	2.30	3.05	3.09
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	1	5
Total Flow Rate (veh/h)	0	820	1161	1255
Effct. Green for Bike (s)	0.0	37.4	48.6	39.3
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	787	1023	827
Bicycle Delay (s/bike)	0.0	17.5	11.3	16.4
Bicycle Compliance		Fair	Fair	Fair
Bicycle LOS Score	0.00	2.90	1.89	1.71
Bicycle LOS		C	B	B

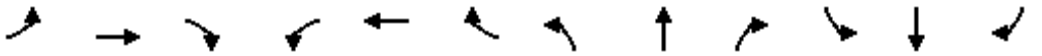


Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	409	382	100	620	1229	111
v/c Ratio	0.90	0.74	0.53	0.29	0.74	0.10
Control Delay	56.2	30.0	48.7	9.8	24.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	30.0	48.7	9.8	24.2	0.2
Queue Length 50th (ft)	243	147	58	90	386	1
Queue Length 95th (ft)	#393	248	90	103	#498	m0
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	475	531	216	2130	1663	1169
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.72	0.46	0.29	0.74	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	494	0	194	0	0	0	79	490	0	0	1106	100
Future Volume (veh/h)	494	0	194	0	0	0	79	490	0	0	1106	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	396	241	223	0	0	0	100	620	0	0	1229	111
Peak Hour Factor	0.87	0.87	0.87	0.25	0.25	0.25	0.79	0.79	0.79	0.90	0.90	0.90
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	490	262	243	0	2	0	125	2136	0	0	1739	1144
Arrive On Green	0.29	0.29	0.29	0.00	0.00	0.00	0.08	0.60	0.00	0.00	0.65	0.65
Sat Flow, veh/h	1668	894	827	0	1870	0	1668	3647	0	0	3647	1448
Grp Volume(v), veh/h	396	0	464	0	0	0	100	620	0	0	1229	111
Grp Sat Flow(s),veh/h/ln	1668	0	1721	0	1870	0	1668	1777	0	0	1777	1448
Q Serve(g_s), s	20.9	0.0	24.8	0.0	0.0	0.0	5.6	8.0	0.0	0.0	21.3	1.2
Cycle Q Clear(g_c), s	20.9	0.0	24.8	0.0	0.0	0.0	5.6	8.0	0.0	0.0	21.3	1.2
Prop In Lane	1.00		0.48	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	490	0	505	0	2	0	125	2136	0	0	1739	1144
V/C Ratio(X)	0.81	0.00	0.92	0.00	0.00	0.00	0.80	0.29	0.00	0.00	0.71	0.10
Avail Cap(c_a), veh/h	509	0	525	0	79	0	202	2136	0	0	1739	1144
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.78	0.78
Uniform Delay (d), s/veh	31.1	0.0	32.5	0.0	0.0	0.0	43.2	9.2	0.0	0.0	12.2	1.6
Incr Delay (d2), s/veh	9.1	0.0	20.8	0.0	0.0	0.0	10.9	0.3	0.0	0.0	1.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.5	0.0	18.8	0.0	0.0	0.0	4.7	4.9	0.0	0.0	9.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.2	0.0	53.3	0.0	0.0	0.0	54.2	9.5	0.0	0.0	14.1	1.8
LnGrp LOS	D	A	D	A	A	A	D	A	A	A	B	A
Approach Vol, veh/h		860			0			720			1340	
Approach Delay, s/veh		47.3			0.0			15.7			13.1	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.6	52.5		31.9		63.1		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	11.5	33.0		29.0		48.0		4.0				
Max Q Clear Time (g_c+I1), s	7.6	23.3		26.8		10.0		0.0				
Green Ext Time (p_c), s	0.1	5.8		1.1		4.4		0.0				

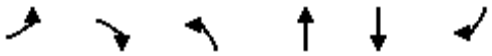
Intersection Summary			
HCM 6th Ctrl Delay		23.8	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.50	1.43	2.95	3.05
Pedestrian Crosswalk LOS	C	A	C	C

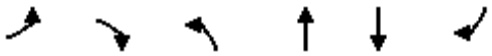
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	2	6
Total Flow Rate (veh/h)	791	0	720	1340
Effct. Green for Bike (s)	27.8	4.3	57.2	44.7
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	585	91	1204	941
Bicycle Delay (s/bike)	23.8	43.3	7.5	13.4
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.94	1.39	1.94	2.43
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1155	94	118	456	266	470
v/c Ratio	0.87	0.14	0.27	0.57	0.56	0.47
Control Delay	31.0	9.0	12.0	16.5	27.2	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.0	9.0	12.0	16.5	27.2	6.4
Queue Length 50th (ft)	225	9	27	130	99	69
Queue Length 95th (ft)	#457	44	52	201	167	119
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		180	200			
Base Capacity (vph)	1323	693	461	1768	1436	1005
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.14	0.26	0.26	0.19	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1109	90	106	410	255	451
Future Volume (veh/h)	1109	90	106	410	255	451
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	1155	94	118	456	266	470
Peak Hour Factor	0.96	0.96	0.90	0.90	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1300	620	347	823	525	1027
Arrive On Green	0.38	0.38	0.07	0.44	0.28	0.28
Sat Flow, veh/h	3456	1648	1781	1870	1870	1535
Grp Volume(v), veh/h	1155	94	118	456	266	470
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1535
Q Serve(g_s), s	20.5	2.5	2.9	11.8	7.8	9.9
Cycle Q Clear(g_c), s	20.5	2.5	2.9	11.8	7.8	9.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1300	620	347	823	525	1027
V/C Ratio(X)	0.89	0.15	0.34	0.55	0.51	0.46
Avail Cap(c_a), veh/h	1322	631	499	1030	1431	1771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.1	13.5	14.4	13.5	19.7	5.5
Incr Delay (d2), s/veh	8.5	0.3	0.6	0.7	1.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.0	0.1	1.8	7.4	5.7	10.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.5	13.8	15.0	14.3	20.7	6.0
LnGrp LOS	C	B	B	B	C	A
Approach Vol, veh/h	1249			574	736	
Approach Delay, s/veh	26.5			14.4	11.3	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		34.8		30.6	10.4	24.3
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0		25.0	10.0	50.0
Max Q Clear Time (g_c+I1), s		13.8		22.5	4.9	11.9
Green Ext Time (p_c), s		3.2		2.1	0.1	6.1

Intersection Summary	
HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	10.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	1	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196586.8	32400.0	294852.8
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	849.0	8666.9	0.0
Crosswalk Circulation Code	A	A	-
Pedestrian Delay (s/p)	43.8	43.8	51.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.88	2.40	2.91
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	3	6	4
Total Flow Rate (veh/h)	1249	574	736
Effct. Green for Bike (s)	25.6	28.5	17.0
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	497	553	330
Bicycle Delay (s/bike)	29.1	27.0	36.0
Bicycle Compliance	Fair	Fair	Poor
Bicycle LOS Score	2.07	2.23	2.48
Bicycle LOS	B	B	B

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	120	1223	279	0	688
Future Vol, veh/h	0	120	1223	279	0	688
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	95	95	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	129	1287	294	0	717

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	791	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	332	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	332	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	332	-
HCM Lane V/C Ratio	-	-	0.389	-
HCM Control Delay (s)	-	-	22.6	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1.8	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	45192.1
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	1911
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.92
Delay for adq Gap	45193.99
Avg Ped Delay (s)	45192.11

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	45192.1
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	1911
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.92
Delay for adq Gap	45193.99
Avg Ped Delay (s)	45192.11

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	230	1517	76	655
v/c Ratio	0.36	0.72	0.56	0.30
Control Delay	16.5	12.1	33.1	6.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	16.5	12.1	33.1	6.8
Queue Length 50th (ft)	26	114	10	36
Queue Length 95th (ft)	47	#425	#97	122
Internal Link Dist (ft)	742	269		1054
Turn Bay Length (ft)			170	
Base Capacity (vph)	1466	2102	135	2156
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.16	0.72	0.56	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	134	86	1052	298	69	596
Future Volume (vph)	134	86	1052	298	69	596
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		6.0		6.0	6.0
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	0.99		0.99		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.94		0.97		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3271		3403		1769	3539
Flt Permitted	0.97		1.00		0.12	1.00
Satd. Flow (perm)	3271		3403		222	3539
Peak-hour factor, PHF	0.96	0.96	0.89	0.89	0.91	0.91
Adj. Flow (vph)	140	90	1182	335	76	655
RTOR Reduction (vph)	28	0	29	0	0	0
Lane Group Flow (vph)	202	0	1488	0	76	655
Confl. Peds. (#/hr)		3		2	2	
Confl. Bikes (#/hr)				4		
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	10.3		33.6		33.6	33.6
Effective Green, g (s)	10.3		33.6		33.6	33.6
Actuated g/C Ratio	0.19		0.61		0.61	0.61
Clearance Time (s)	5.0		6.0		6.0	6.0
Vehicle Extension (s)	2.0		5.5		5.5	5.5
Lane Grp Cap (vph)	613		2082		135	2165
v/s Ratio Prot	c0.06		c0.44			0.19
v/s Ratio Perm					0.34	
v/c Ratio	0.33		0.71		0.56	0.30
Uniform Delay, d1	19.3		7.3		6.3	5.1
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	0.1		1.6		9.6	0.2
Delay (s)	19.4		8.9		15.9	5.3
Level of Service	B		A		B	A
Approach Delay (s)	19.4		8.9			6.4
Approach LOS	B		A			A

Intersection Summary			
HCM 2000 Control Delay	9.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	54.9	Sum of lost time (s)	11.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

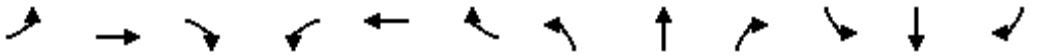
Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	1	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	2	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	4624.1	16184.4	10768.8
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	4937.6	0.0	5102.6
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	25.0	22.4	25.0
Pedestrian Compliance Code	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.20	3.05	2.81
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	5	6
Total Flow Rate (veh/h)	230	1517	731
Effct. Green for Bike (s)	10.3	33.6	33.6
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	317	1034	1034
Bicycle Delay (s/bike)	23.1	7.6	7.6
Bicycle Compliance	Fair	Good	Good
Bicycle LOS Score	1.17	2.44	2.09
Bicycle LOS	A	B	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	45	34	211	207	376	23	464	723	351	341
v/c Ratio	0.25	0.14	0.56	0.54	0.58	0.19	0.59	0.80	0.69	0.19
Control Delay	47.0	1.2	40.1	39.6	7.6	55.4	38.3	13.5	43.8	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	1.2	40.1	39.6	7.6	55.4	38.3	13.5	43.8	18.1
Queue Length 50th (ft)	24	0	110	108	0	12	122	98	174	46
Queue Length 95th (ft)	71	0	232	227	52	52	261	188	#571	160
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		100	165	
Base Capacity (vph)	341	369	961	966	1052	222	1619	1295	506	2171
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.09	0.22	0.21	0.36	0.10	0.29	0.56	0.69	0.16

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	17	30	340	11	316	22	436	680	316	295	12
Future Volume (veh/h)	23	17	30	340	11	316	22	436	680	316	295	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	19	34	414	0	0	23	464	723	351	328	13
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.94	0.94	0.94	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	49	36	71	527	0		42	1460	872	391	2110	83
Arrive On Green	0.05	0.05	0.05	0.15	0.00	0.00	0.02	0.41	0.41	0.22	0.61	0.61
Sat Flow, veh/h	1050	768	1512	3563	0	1585	1781	3554	1552	1781	3480	137
Grp Volume(v), veh/h	45	0	34	414	0	0	23	464	723	351	167	174
Grp Sat Flow(s),veh/h/ln	1818	0	1512	1781	0	1585	1781	1777	1552	1781	1777	1840
Q Serve(g_s), s	2.3	0.0	2.1	10.9	0.0	0.0	1.2	8.6	37.3	18.6	4.0	4.0
Cycle Q Clear(g_c), s	2.3	0.0	2.1	10.9	0.0	0.0	1.2	8.6	37.3	18.6	4.0	4.0
Prop In Lane	0.58		1.00	1.00		1.00	1.00		1.00	1.00		0.07
Lane Grp Cap(c), veh/h	85	0	71	527	0		42	1460	872	391	1077	1116
V/C Ratio(X)	0.53	0.00	0.48	0.79	0.00		0.54	0.32	0.83	0.90	0.15	0.16
Avail Cap(c_a), veh/h	281	0	233	1834	0		202	1464	874	459	1077	1116
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.2	0.0	45.1	39.9	0.0	0.0	46.9	19.4	17.7	36.9	8.3	8.3
Incr Delay (d2), s/veh	1.9	0.0	1.9	1.0	0.0	0.0	4.0	0.3	7.4	18.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	0.0	1.5	8.1	0.0	0.0	1.0	6.1	25.9	14.9	2.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	0.0	47.0	40.9	0.0	0.0	50.8	19.7	25.1	55.7	8.4	8.4
LnGrp LOS	D	A	D	D	A		D	B	C	E	A	A
Approach Vol, veh/h		79			414	A		1210			692	
Approach Delay, s/veh		47.1			40.9			23.5			32.4	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.8	44.4		9.0	5.8	63.4		18.9				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	25.0	40.0		15.0	11.0	40.0		50.0				
Max Q Clear Time (g_c+I1), s	20.6	39.3		4.3	3.2	6.0		12.9				
Green Ext Time (p_c), s	0.7	0.6		0.1	0.0	4.0		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		29.9	
HCM 6th LOS		C	

Notes

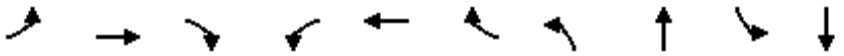
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	0	6	1	1
Ped. Right-Left Flow Rate (p/h)	0	3	3	1
Ped. R. Sidewalk Flow Rate (p/h)	1	1	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	117946.6	49123.9	45313.5	294866.4
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	1678.8	493.8
Crosswalk Circulation Code	-	F	A	A
Pedestrian Delay (s/p)	65.7	65.7	65.7	65.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.04	3.01	3.39	2.73
Pedestrian Crosswalk LOS	B	C	C	C

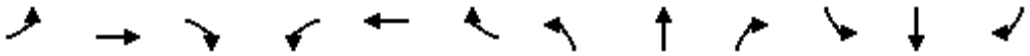
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	4	2	4	9
Total Flow Rate (veh/h)	79	794	1210	692
Effct. Green for Bike (s)	9.3	21.3	21.0	48.2
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	127	290	286	656
Bicycle Delay (s/bike)	64.6	53.8	54.1	33.4
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.73	3.88	2.25	1.81
Bicycle LOS	C	D	B	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	87	176	124	141	123	82	274	388	343	726
v/c Ratio	0.52	0.58	0.29	0.72	0.33	0.17	0.58	0.54	0.79	0.66
Control Delay	48.4	37.4	2.1	57.9	30.9	0.8	36.8	28.5	43.2	25.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	37.4	2.1	57.9	30.9	0.8	36.8	28.5	43.2	25.8
Queue Length 50th (ft)	38	74	0	62	50	0	59	78	139	145
Queue Length 95th (ft)	76	111	0	#165	95	0	117	137	#353	243
Internal Link Dist (ft)		1706			363			1325		863
Turn Bay Length (ft)	250		100	105		410	300		210	
Base Capacity (vph)	171	542	593	196	542	599	570	1061	465	1410
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.32	0.21	0.72	0.23	0.14	0.48	0.37	0.74	0.51

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	125	88	116	101	67	263	319	54	312	613	47
Future Volume (veh/h)	62	125	88	116	101	67	263	319	54	312	613	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.94	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	176	124	141	123	82	274	332	56	343	674	52
Peak Hour Factor	0.71	0.71	0.71	0.82	0.82	0.82	0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	319	264	179	389	318	390	544	90	397	967	75
Arrive On Green	0.06	0.17	0.17	0.10	0.21	0.21	0.11	0.18	0.18	0.22	0.29	0.29
Sat Flow, veh/h	1781	1870	1549	1781	1870	1529	3456	3019	502	1781	3329	257
Grp Volume(v), veh/h	87	176	124	141	123	82	274	193	195	343	359	367
Grp Sat Flow(s),veh/h/ln	1781	1870	1549	1781	1870	1529	1728	1777	1744	1781	1777	1809
Q Serve(g_s), s	3.1	5.6	4.7	5.0	3.6	2.9	4.9	6.5	6.6	11.9	11.6	11.6
Cycle Q Clear(g_c), s	3.1	5.6	4.7	5.0	3.6	2.9	4.9	6.5	6.6	11.9	11.6	11.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.29	1.00		0.14
Lane Grp Cap(c), veh/h	112	319	264	179	389	318	390	320	314	397	516	526
V/C Ratio(X)	0.78	0.55	0.47	0.79	0.32	0.26	0.70	0.60	0.62	0.86	0.70	0.70
Avail Cap(c_a), veh/h	194	610	505	221	610	498	644	607	595	525	800	814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	24.5	24.1	28.3	21.6	21.4	27.5	24.3	24.4	24.1	20.3	20.3
Incr Delay (d2), s/veh	10.9	0.6	0.5	14.2	0.2	0.2	1.6	2.4	2.6	10.0	2.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	4.1	2.9	4.8	2.6	1.7	3.5	4.8	4.9	9.5	8.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	25.0	24.6	42.5	21.8	21.5	29.1	26.7	26.9	34.1	22.4	22.4
LnGrp LOS	D	C	C	D	C	C	C	C	C	C	C	C
Approach Vol, veh/h		387			346			662			1069	
Approach Delay, s/veh		28.4			30.2			27.8			26.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.4	17.6	10.5	17.0	12.3	24.7	8.1	19.4
Change Period (Y+Rc), s	5.0	6.0	4.0	* 6	5.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	19.0	22.0	8.0	* 21	12.0	29.0	7.0	21.0
Max Q Clear Time (g_c+I1), s	13.9	8.6	7.0	7.6	6.9	13.6	5.1	5.6
Green Ext Time (p_c), s	0.5	2.3	0.0	0.7	0.4	4.7	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	27.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	90.0	70.0	80.0	70.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	4	6	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	6.0	6.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	60.00	60.00	100.00
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	3	1	4	0
Ped. R. Sidewalk Flow Rate (p/h)	6	3	2	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	4067.3	4905.2	2327.1	30000.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	5215.5	1916.4	1078.2	0.0
Crosswalk Circulation Code	A	A	A	-
Pedestrian Delay (s/p)	34.7	34.7	34.7	34.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.61	2.48	2.86	2.82
Pedestrian Crosswalk LOS	C	B	C	C

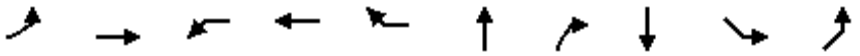
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	1	8	15
Total Flow Rate (veh/h)	387	346	662	1069
Effct. Green for Bike (s)	12.0	14.8	15.0	22.9
Cross Street Width (ft)	80.0	80.0	62.0	75.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	267	329	333	509
Bicycle Delay (s/bike)	33.9	31.4	31.4	25.2
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.14	2.07	1.77	2.30
Bicycle LOS	B	B	B	B

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	313	4	5	0	307	4	0	10
Future Vol, veh/h	0	0	0	0	313	4	5	0	307	4	0	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	10	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	340	4	5	0	334	4	0	11
Number of Lanes	0	0	0	0	1	1	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	13.8	10.4	8.1
HCM LOS	B	B	A

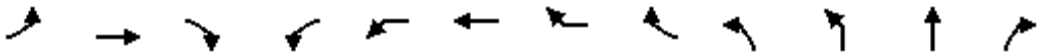
Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	2%	0%	0%	29%
Vol Thru, %	0%	100%	0%	0%
Vol Right, %	98%	0%	100%	71%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	312	313	4	14
LT Vol	5	0	0	4
Through Vol	0	313	0	0
RT Vol	307	0	4	10
Lane Flow Rate	339	340	4	15
Geometry Grp	2	7	7	2
Degree of Util (X)	0.409	0.514	0.006	0.021
Departure Headway (Hd)	4.341	5.434	4.592	4.931
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	827	660	771	720
Service Time	2.371	3.209	2.368	3.001
HCM Lane V/C Ratio	0.41	0.515	0.005	0.021
HCM Control Delay	10.4	13.9	7.4	8.1
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	2	3	0	0.1



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	18	852	63	665	348	47	84	488	20	20
v/c Ratio	0.21	0.82	0.85	0.54	0.56	0.09	0.11	0.91	0.19	0.07
Control Delay	55.5	41.6	121.2	31.3	20.9	22.4	0.3	52.7	52.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	41.6	121.2	31.3	20.9	22.4	0.3	52.7	52.4	0.5
Queue Length 50th (ft)	10	217	35	131	66	14	0	227	11	0
Queue Length 95th (ft)	38	#469	#125	283	205	50	0	#371	41	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	92	1036	74	1232	622	533	735	536	108	362
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.82	0.85	0.54	0.56	0.09	0.11	0.91	0.19	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	17	789	4	24	28	545	148	138	13	20	8	73
Future Volume (vph)	17	789	4	24	28	545	148	138	13	20	8	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00				1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.94				1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85				1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00	1.00				0.96	1.00
Satd. Flow (prot)	1770	3536			1770	3539	1493				1787	1553
Flt Permitted	0.95	1.00			0.95	1.00	1.00				0.70	1.00
Satd. Flow (perm)	1770	3536			1770	3539	1493				1308	1553
Peak-hour factor, PHF	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.87	0.87	0.87	0.87
Adj. Flow (vph)	18	848	4	29	34	665	180	168	15	23	9	84
RTOR Reduction (vph)	0	0	0	0	0	0	110	0	0	0	0	53
Lane Group Flow (vph)	18	852	0	0	63	665	238	0	0	0	47	31
Confl. Peds. (#/hr)			1				5	5	2	2		5
Confl. Bikes (#/hr)			2				4	4				5
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	Perm	NA	Perm
Protected Phases	5	2		1	1	6					8	
Permitted Phases							6		8	8		8
Actuated Green, G (s)	1.7	32.4			4.1	33.8	33.8				39.6	39.6
Effective Green, g (s)	1.7	32.4			4.1	33.8	33.8				39.6	39.6
Actuated g/C Ratio	0.02	0.30			0.04	0.32	0.32				0.37	0.37
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0				3.5	3.5
Lane Grp Cap (vph)	28	1067			67	1114	470				482	573
v/s Ratio Prot	0.01	c0.24			c0.04	0.19						
v/s Ratio Perm							0.16				0.04	0.02
v/c Ratio	0.64	0.80			0.94	0.60	0.51				0.10	0.05
Uniform Delay, d1	52.5	34.4			51.5	31.0	29.9				22.2	21.8
Progression Factor	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Incremental Delay, d2	32.0	4.9			88.2	1.3	1.8				0.1	0.0
Delay (s)	84.5	39.3			139.6	32.3	31.7				22.3	21.8
Level of Service	F	D			F	C	C				C	C
Approach Delay (s)		40.3				38.4					22.0	
Approach LOS		D				D					C	

Intersection Summary			
HCM 2000 Control Delay	45.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	107.3	Sum of lost time (s)	27.0
Intersection Capacity Utilization	82.0%	ICU Level of Service	D
Analysis Period (min)	15		

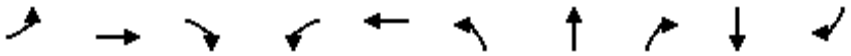
c Critical Lane Group

Movement	SBL	SBT	SBR	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations											
Traffic Volume (vph)	278	3	46	5	5	5	5	5	5	5	5
Future Volume (vph)	278	3	46	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0				5.0		
Lane Util. Factor		1.00			1.00				1.00		
Frpb, ped/bikes		1.00			1.00				1.00		
Flpb, ped/bikes		1.00			1.00				1.00		
Frt		0.98			0.93				0.93		
Flt Protected		0.96			0.98				0.98		
Satd. Flow (prot)		1738			1695				1695		
Flt Permitted		0.72			1.00				0.98		
Satd. Flow (perm)		1314			1737				1695		
Peak-hour factor, PHF	0.67	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	415	4	69	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	0	488	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)	5		2								
Confl. Bikes (#/hr)											
Turn Type	Perm	NA		Perm	Prot			Perm	Prot		
Protected Phases		4			7				3		
Permitted Phases	4			7				3			
Actuated Green, G (s)		39.6			2.1				3.1		
Effective Green, g (s)		39.6			2.1				3.1		
Actuated g/C Ratio		0.37			0.02				0.03		
Clearance Time (s)		5.0			5.0				5.0		
Vehicle Extension (s)		3.5			2.0				1.5		
Lane Grp Cap (vph)		484			33				48		
v/s Ratio Prot											
v/s Ratio Perm		c0.37			c0.01				0.00		
v/c Ratio		1.01			0.61				0.01		
Uniform Delay, d1		33.8			52.2				50.6		
Progression Factor		1.00			1.00				1.00		
Incremental Delay, d2		43.0			19.6				0.0		
Delay (s)		76.8			71.8				50.6		
Level of Service		E			E				D		
Approach Delay (s)		76.8			71.8				50.6		
Approach LOS		E			E				D		

Intersection Summary

Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29670.6	11554.6	0.0	72900.0	24280.4
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2538.8	4584.8	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	47.0	47.0	47.0	47.0	47.0	47.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.78	3.29	2.01	2.04	1.82	1.78
Pedestrian Crosswalk LOS	C	C	B	B	B	B

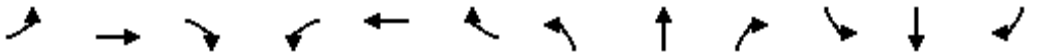
Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	870	1076	131	488	20	20
Effct. Green for Bike (s)	28.4	33.8	39.6	39.6	6.1	7.1
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	494	588	689	689	106	123
Bicycle Delay (s/bike)	32.7	28.8	24.9	24.8	51.6	50.6
Bicycle Compliance	Poor	Fair	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.78	1.54	2.87	2.73	2.62	2.20
Bicycle LOS	C	B	C	C	C	B



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	19	1164	95	209	912	29	29	192	24	13
v/c Ratio	0.17	0.60	0.11	0.60	0.25	0.21	0.21	0.43	0.12	0.05
Control Delay	49.7	19.5	2.7	48.5	11.0	46.7	46.7	8.5	36.4	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.7	19.5	2.7	48.5	11.0	46.7	46.7	8.5	36.4	0.2
Queue Length 50th (ft)	10	243	0	58	68	15	15	0	13	0
Queue Length 95th (ft)	38	474	18	#123	187	37	37	10	25	0
Internal Link Dist (ft)		217			575		1379		108	
Turn Bay Length (ft)	145		90	350		150				50
Base Capacity (vph)	111	1926	894	346	3601	635	635	450	673	664
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.60	0.11	0.60	0.25	0.05	0.05	0.43	0.04	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	1001	82	169	706	32	38	0	125	14	1	8
Future Volume (veh/h)	16	1001	82	169	706	32	38	0	125	14	1	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	1164	95	209	872	40	58	0	192	22	2	12
Peak Hour Factor	0.86	0.86	0.86	0.81	0.81	0.81	0.65	0.65	0.65	0.64	0.64	0.64
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	30	1630	710	284	2617	120	519	0	360	63	6	59
Arrive On Green	0.02	0.46	0.46	0.08	0.52	0.52	0.15	0.00	0.15	0.04	0.04	0.04
Sat Flow, veh/h	1781	3554	1548	3456	4996	229	3563	0	1575	1639	149	1554
Grp Volume(v), veh/h	19	1164	95	209	593	319	58	0	192	24	0	12
Grp Sat Flow(s),veh/h/ln	1781	1777	1548	1728	1702	1820	1781	0	1575	1788	0	1554
Q Serve(g_s), s	0.9	23.0	3.1	5.2	8.8	8.8	1.2	0.0	9.3	1.1	0.0	0.7
Cycle Q Clear(g_c), s	0.9	23.0	3.1	5.2	8.8	8.8	1.2	0.0	9.3	1.1	0.0	0.7
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	30	1630	710	284	1783	953	519	0	360	68	0	59
V/C Ratio(X)	0.63	0.71	0.13	0.74	0.33	0.33	0.11	0.00	0.53	0.35	0.00	0.20
Avail Cap(c_a), veh/h	102	1753	763	317	1796	960	1226	0	672	615	0	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.6	19.0	13.6	39.1	12.0	12.0	32.3	0.0	29.6	40.9	0.0	40.6
Incr Delay (d2), s/veh	11.1	2.7	0.4	6.7	0.5	0.9	0.1	0.0	0.9	1.9	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	13.8	1.9	4.3	5.5	6.2	0.9	0.0	6.2	1.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.7	21.7	14.0	45.8	12.5	12.9	32.4	0.0	30.5	42.7	0.0	41.6
LnGrp LOS	D	C	B	D	B	B	C	A	C	D	A	D
Approach Vol, veh/h		1278			1121			250			36	
Approach Delay, s/veh		21.6			18.8			30.9			42.4	
Approach LOS		C			B			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.2	46.0		9.3	7.5	51.7		18.7				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	8.0	43.0		30.0	5.0	46.0		30.0				
Max Q Clear Time (g_c+I1), s	7.2	25.0		3.1	2.9	10.8		11.3				
Green Ext Time (p_c), s	0.1	15.0		0.1	0.0	19.1		0.7				

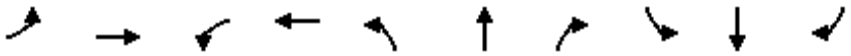
Intersection Summary		
HCM 6th Ctrl Delay		21.6
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	105.0	120.0	90.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	8	5	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	14.00	14.00	14.00	14.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	2
Ped. Right-Left Flow Rate (p/h)	1	0	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	40	25
Right Corner Area per Ped (sq.ft)	2477.3	2076.3	6300.0	1352.5
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3603.4	0.0	4994.2	1565.4
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	56.9	56.9	56.9	56.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.11	3.17	2.52	1.99
Pedestrian Crosswalk LOS	C	C	C	B

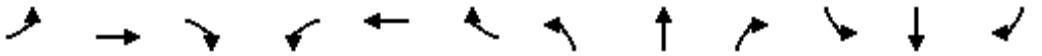
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	16	9	0	1
Total Flow Rate (veh/h)	1278	1121	250	36
Effct. Green for Bike (s)	45.4	59.6	6.7	9.4
Cross Street Width (ft)	70.0	55.0	87.0	82.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	673	883	99	139
Bicycle Delay (s/bike)	30.0	21.2	61.0	58.5
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.18	1.73	2.02	1.59
Bicycle LOS	B	B	B	B



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	1304	181	667	249	252	692	14	14	14
v/c Ratio	0.41	0.63	0.61	0.23	0.78	0.79	0.90	0.10	0.11	0.05
Control Delay	64.5	27.0	39.2	2.4	55.6	56.0	28.0	41.6	41.7	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.5	27.0	39.2	2.4	55.6	56.0	28.0	41.6	41.7	0.4
Queue Length 50th (ft)	18	254	123	25	153	155	157	9	9	0
Queue Length 95th (ft)	#52	344	194	28	#211	#214	150	18	18	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	70	2062	295	2961	338	340	766	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.63	0.61	0.23	0.74	0.74	0.90	0.05	0.05	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	1109	91	161	575	19	376	10	533	11	7	9
Future Volume (veh/h)	27	1109	91	161	575	19	376	10	533	11	7	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	29	1205	99	181	646	21	497	0	692	14	15	14
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.77	0.77	0.77	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	327	1435	118	540	2232	72	616	0	750	56	55	49
Arrive On Green	0.18	0.30	0.30	0.65	0.88	0.88	0.18	0.00	0.18	0.03	0.03	0.03
Sat Flow, veh/h	1781	4784	393	1668	5074	164	3337	0	1460	1781	1752	1561
Grp Volume(v), veh/h	29	857	447	181	433	234	497	0	692	14	15	14
Grp Sat Flow(s),veh/h/ln	1781	1702	1773	1668	1702	1834	1668	0	1460	1781	1752	1561
Q Serve(g_s), s	1.4	23.6	23.6	4.9	2.0	2.1	14.3	0.0	10.9	0.8	0.8	0.9
Cycle Q Clear(g_c), s	1.4	23.6	23.6	4.9	2.0	2.1	14.3	0.0	10.9	0.8	0.8	0.9
Prop In Lane	1.00		0.22	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	327	1021	532	540	1498	807	616	0	750	56	55	49
V/C Ratio(X)	0.09	0.84	0.84	0.34	0.29	0.29	0.81	0.00	0.92	0.25	0.27	0.28
Avail Cap(c_a), veh/h	327	1021	532	540	1498	807	667	0	773	285	280	250
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.82	0.82	0.82	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	32.7	32.8	12.8	3.5	3.5	39.1	0.0	22.7	47.3	47.3	47.3
Incr Delay (d2), s/veh	0.1	7.6	13.6	0.3	0.4	0.7	6.8	0.0	16.3	2.3	2.6	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	15.5	17.1	2.9	1.2	1.5	10.5	0.0	24.2	0.7	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	40.3	46.3	13.1	3.9	4.2	45.9	0.0	38.9	49.5	49.9	50.4
LnGrp LOS	C	D	D	B	A	A	D	A	D	D	D	D
Approach Vol, veh/h		1333			848			1189			43	
Approach Delay, s/veh		42.2			5.9			41.8			49.9	
Approach LOS		D			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	36.4	34.0		7.2	22.4	48.0		22.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	18.0	30.0		16.0	4.0	44.0		20.0				
Max Q Clear Time (g_c+I1), s	6.9	25.6		2.9	3.4	4.1		16.3				
Green Ext Time (p_c), s	0.5	3.0		0.1	0.0	4.9		2.2				

Intersection Summary			
HCM 6th Ctrl Delay		33.2	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

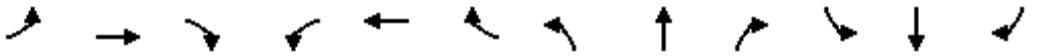
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	100.0	90.0	100.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	0.1	8.0	0.1	12.0
Right Corner Size B (ft)	6.0	0.1	10.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.60	0.80	1.00	1.20
Ped. Left-Right Flow Rate (p/h)	0	0	3	1
Ped. Right-Left Flow Rate (p/h)	2	0	8	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21.6	668.2	44.2	270.0
Right Corner Quality of Service	D	A	B	A
Ped. Circulation Area (sq.ft)	6056.1	0.0	1035.7	11234.4
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.01	3.06	2.85	2.17
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	20	11	0	0
Total Flow Rate (veh/h)	1333	848	1193	42
Effct. Green for Bike (s)	41.3	58.5	20.4	8.1
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	826	1170	408	162
Bicycle Delay (s/bike)	17.4	8.7	31.7	42.2
Bicycle Compliance	Fair	Good	Poor	Poor
Bicycle LOS Score	2.00	1.73	3.86	2.94
Bicycle LOS	B	B	D	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	597	1461	893	126	206
v/c Ratio	0.82	0.57	0.57	0.40	0.67
Control Delay	34.1	5.9	23.1	36.7	40.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	34.1	5.9	23.1	36.7	40.3
Queue Length 50th (ft)	179	102	200	73	104
Queue Length 95th (ft)	m160	151	333	100	142
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	732	2574	1566	557	514
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.82	0.57	0.57	0.23	0.40

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	472	1154	0	0	647	130	111	3	179	0	0	0
Future Volume (veh/h)	472	1154	0	0	647	130	111	3	179	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	597	1461	0	0	744	149	126	3	203			
Peak Hour Factor	0.79	0.79	0.79	0.87	0.87	0.87	0.88	0.88	0.88			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1242	2607	0	0	912	183	311	4	270			
Arrive On Green	0.77	1.00	0.00	0.00	0.31	0.31	0.19	0.19	0.19			
Sat Flow, veh/h	3237	3647	0	0	3035	589	1668	21	1450			
Grp Volume(v), veh/h	597	1461	0	0	449	444	126	0	206			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1753	1668	0	1471			
Q Serve(g_s), s	6.8	0.0	0.0	0.0	23.4	23.4	6.6	0.0	13.2			
Cycle Q Clear(g_c), s	6.8	0.0	0.0	0.0	23.4	23.4	6.6	0.0	13.2			
Prop In Lane	1.00		0.00	0.00		0.34	1.00		0.99			
Lane Grp Cap(c), veh/h	1242	2607	0	0	551	544	311	0	274			
V/C Ratio(X)	0.48	0.56	0.00	0.00	0.82	0.82	0.41	0.00	0.75			
Avail Cap(c_a), veh/h	1242	2607	0	0	551	544	567	0	500			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.62	0.62	0.00	0.00	0.96	0.96	1.00	0.00	1.00			
Uniform Delay (d), s/veh	8.0	0.0	0.0	0.0	31.9	31.9	35.8	0.0	38.5			
Incr Delay (d2), s/veh	0.2	0.5	0.0	0.0	12.1	12.3	0.9	0.0	4.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	3.1	0.4	0.0	0.0	17.0	16.8	5.0	0.0	8.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.1	0.5	0.0	0.0	44.0	44.2	36.7	0.0	42.6			
LnGrp LOS	A	A	A	A	D	D	D	A	D			
Approach Vol, veh/h		2058			893			332				
Approach Delay, s/veh		2.7			44.1			40.4				
Approach LOS		A			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.4			42.4	35.0		22.6				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			23.0	31.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			8.8	25.4		15.2				
Green Ext Time (p_c), s		17.6			2.5	2.7		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			17.8									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	100.0	55.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0	0.1
Right Corner Size B (ft)	6.0	6.0	6.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	3548.2	4628.6	1884.6	0.0
Right Corner Quality of Service	A	A	A	-
Ped. Circulation Area (sq.ft)	0.0	1347.2	1252.8	0.0
Crosswalk Circulation Code	-	A	A	-
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.02	2.89	2.00	2.09
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	7	12	0	0
Total Flow Rate (veh/h)	2058	893	332	0
Effct. Green for Bike (s)	72.7	45.7	19.3	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1454	914	386	0
Bicycle Delay (s/bike)	3.7	14.8	32.6	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.81	1.77	2.27	0.00
Bicycle LOS	C	B	B	

Intersection	
Intersection Delay, s/veh	3.3
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	123	20	175
Demand Flow Rate, veh/h	126	20	179
Vehicles Circulating, veh/h	100	91	3
Vehicles Exiting, veh/h	82	135	108
Ped Vol Crossing Leg, #/h	5	0	0
Ped Cap Adj	0.999	1.000	1.000
Approach Delay, s/veh	3.6	2.9	3.2
Approach LOS	A	A	A

Lane	Left	Left	Left	Right
Designated Moves	LT	TR	L	TR
Assumed Moves	LT	TR	L	TR
RT Channelized				
Lane Util	1.000	1.000	0.559	0.441
Follow-Up Headway, s	2.535	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328
Entry Flow, veh/h	126	20	100	79
Cap Entry Lane, veh/h	1304	1314	1346	1417
Entry HV Adj Factor	0.979	0.997	0.980	0.975
Flow Entry, veh/h	123	20	98	77
Cap Entry, veh/h	1276	1311	1319	1381
V/C Ratio	0.097	0.015	0.074	0.056
Control Delay, s/veh	3.6	2.9	3.3	3.0
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	2	452	363	2	820	315	155	502
v/c Ratio	0.01	0.94	0.23	0.04	1.02	0.40	0.76	0.47
Control Delay	0.0	73.1	0.3	66.5	72.0	9.8	77.6	20.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	73.1	0.3	66.5	72.0	9.8	77.6	20.1
Queue Length 50th (ft)	0	337	0	2	610	41	117	191
Queue Length 95th (ft)	0	#589	0	12	#1261	151	#281	497
Internal Link Dist (ft)	160	615			469			438
Turn Bay Length (ft)			180	120		370	490	
Base Capacity (vph)	509	483	1583	57	806	795	212	1075
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.94	0.23	0.04	1.02	0.40	0.73	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	350	2	283	2	771	296	136	441	1
Future Volume (veh/h)	0	0	1	350	2	283	2	771	296	136	441	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	2	449	3	0	2	820	0	155	501	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.94	0.94	0.94	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	15	475	3		4	824		182	1008	2
Arrive On Green	0.00	0.00	0.01	0.27	0.27	0.00	0.00	0.44	0.00	0.10	0.54	0.54
Sat Flow, veh/h	0	0	1536	1770	12	1585	1781	1870	1585	1781	1866	4
Grp Volume(v), veh/h	0	0	2	452	0	0	2	820	0	155	0	502
Grp Sat Flow(s),veh/h/ln	0	0	1536	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.2	30.5	0.0	0.0	0.1	53.6	0.0	10.5	0.0	20.7
Cycle Q Clear(g_c), s	0.0	0.0	0.2	30.5	0.0	0.0	0.1	53.6	0.0	10.5	0.0	20.7
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	15	478	0		4	824		182	0	1010
V/C Ratio(X)	0.00	0.00	0.14	0.95	0.00		0.52	1.00		0.85	0.00	0.50
Avail Cap(c_a), veh/h	0	0	338	494	0		58	824		218	0	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	60.2	44.0	0.0	0.0	61.1	34.2	0.0	54.1	0.0	17.7
Incr Delay (d2), s/veh	0.0	0.0	4.1	26.9	0.0	0.0	80.8	30.2	0.0	23.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.1	23.2	0.0	0.0	0.3	38.1	0.0	9.6	0.0	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	64.3	70.9	0.0	0.0	142.0	64.4	0.0	77.2	0.0	18.1
LnGrp LOS	A	A	E	E	A		F	E		E	A	B
Approach Vol, veh/h		2			452	A		822	A		657	
Approach Delay, s/veh		64.3			70.9			64.6			32.0	
Approach LOS		E			E			E			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.5	60.0		6.2	5.3	72.3		38.9				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	54.0		27.0	4.0	54.0		34.0				
Max Q Clear Time (g_c+I1), s	12.5	55.6		2.2	2.1	22.7		32.5				
Green Ext Time (p_c), s	0.1	0.0		0.0	0.0	3.1		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		55.0	
HCM 6th LOS		D	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	1	1	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	9.01	83150.0	53465.9	-86.0
Right Corner Quality of Service	E	A	A	F
Ped. Circulation Area (sq.ft)	0.2	8544.3	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	76.0	67.3	67.3	76.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.44	2.82	2.97
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	15	4	7
Total Flow Rate (veh/h)	2	815	1137	657
Effct. Green for Bike (s)	9.1	34.3	54.5	72.7
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	120	451	717	957
Bicycle Delay (s/bike)	67.2	45.9	31.3	20.8
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.71	4.05	3.22	2.00
Bicycle LOS	C	D	C	B

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	107	194	1263	913	34
Future Vol, veh/h	11	107	194	1263	913	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	115	209	1358	982	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2098	510	1019	0	-	0
Stage 1	1001	-	-	-	-	-
Stage 2	1097	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	45	509	677	-	-	-
Stage 1	316	-	-	-	-	-
Stage 2	281	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	31	509	677	-	-	-
Mov Cap-2 Maneuver	31	-	-	-	-	-
Stage 1	218	-	-	-	-	-
Stage 2	281	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29.6	1.7	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	677	-	31	509	-	-
HCM Lane V/C Ratio	0.308	-	0.382	0.226	-	-
HCM Control Delay (s)	12.7	-	180.2	14.1	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	1.3	-	1.2	0.9	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	10146603.0	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	2176	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.98	
Delay for adq Gap	10146605.00	
Avg Ped Delay (s)	10146603.00	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	350.9	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	913	1263
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.98	0.98
Prob of Blocked Lane	0.87	0.87
Delay for adq Gap	203.83	153.41
Avg Ped Delay (s)	200.17	150.77

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	169	63	1466	131	41	1066
v/c Ratio	0.30	0.20	0.72	0.14	0.18	0.45
Control Delay	25.5	8.2	17.3	3.9	7.6	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	8.2	17.3	3.9	7.6	7.3
Queue Length 50th (ft)	32	0	226	2	4	75
Queue Length 95th (ft)	41	14	#594	37	24	246
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1384	664	2033	918	394	2769
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.09	0.72	0.14	0.10	0.38

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	115	43	1407	126	38	981
Future Volume (veh/h)	115	43	1407	126	38	981
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	169	63	1466	131	41	1066
Peak Hour Factor	0.68	0.68	0.96	0.96	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	334	153	2037	878	272	2528
Arrive On Green	0.10	0.10	0.57	0.57	0.03	0.71
Sat Flow, veh/h	3456	1585	3647	1531	1781	3647
Grp Volume(v), veh/h	169	63	1466	131	41	1066
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1531	1781	1777
Q Serve(g_s), s	2.7	2.1	17.2	2.3	0.5	7.1
Cycle Q Clear(g_c), s	2.7	2.1	17.2	2.3	0.5	7.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	334	153	2037	878	272	2528
V/C Ratio(X)	0.51	0.41	0.72	0.15	0.15	0.42
Avail Cap(c_a), veh/h	1628	747	2170	935	586	3038
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	24.4	8.9	5.7	7.4	3.4
Incr Delay (d2), s/veh	1.2	1.8	1.5	0.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	0.1	9.1	1.1	0.2	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.8	26.1	10.4	5.9	7.5	3.6
LnGrp LOS	C	C	B	A	A	A
Approach Vol, veh/h	232		1597			1107
Approach Delay, s/veh	25.9		10.0			3.8
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		46.8		10.5	7.9	38.9
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		49.0		27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		9.1		4.7	2.5	19.2
Green Ext Time (p_c), s		16.8		1.0	0.0	13.7

Intersection Summary	
HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	48.6	72.1	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	7	0	5
Ped. Right-Left Flow Rate (p/h)	4	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	4524.3	6041.8	14580.0
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	F	-	F
Pedestrian Delay (s/p)	45.5	45.5	45.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	2.86	3.08
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	2	8	6
Total Flow Rate (veh/h)	232	1597	1107
Effct. Green for Bike (s)	11.5	39.7	46.4
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	253	873	1020
Bicycle Delay (s/bike)	34.8	14.5	11.0
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	2.82	2.36	1.45
Bicycle LOS	C	B	A

Intersection	
Int Delay, s/veh	4.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	63	1475	55	44	1051
Future Vol, veh/h	25	63	1475	55	44	1051
Conflicting Peds, #/hr	0	0	0	19	19	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	83	1569	59	47	1118

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2271	833	0	0	1647	0
Stage 1	1618	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	48	268	-	-	188	-
Stage 1	101	-	-	-	-	-
Stage 2	466	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	35	263	-	-	185	-
Mov Cap-2 Maneuver	35	-	-	-	-	-
Stage 1	99	-	-	-	-	-
Stage 2	348	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	104	0	1.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	35	263	185	-
HCM Lane V/C Ratio	-	-	0.94	0.315	0.253	-
HCM Control Delay (s)	-	-	$ 303.3	24.9	30.9	-
HCM Lane LOS	-	-	F	C	D	-
HCM 95th %tile Q(veh)	-	-	3.4	1.3	1	-

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	3398.3	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	1475	1051
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	1.00	0.99
Prob of Blocked Lane	0.91	0.92
Delay for adq Gap	2888.94	515.14
Avg Ped Delay (s)	2886.52	511.83

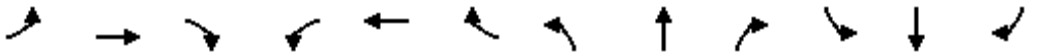
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	801625856.0
Level of Service	F

Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2526
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	801625856.00
Avg Ped Delay (s)	801625856.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	33	93	72	34	148	1705	15	1114	23
v/c Ratio	0.11	0.19	0.23	0.07	0.36	0.51	0.06	0.74	0.03
Control Delay	21.9	1.1	23.8	0.3	10.2	11.8	9.7	25.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	1.1	23.8	0.3	10.2	11.8	9.7	25.1	0.1
Queue Length 50th (ft)	11	0	25	0	15	93	1	170	0
Queue Length 95th (ft)	30	0	52	0	68	361	12	#466	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	506	682	520	666	653	3346	387	1635	788
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.14	0.14	0.05	0.23	0.51	0.04	0.68	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	4	75	42	15	27	133	1477	58	14	1036	21
Future Volume (veh/h)	23	4	75	42	15	27	133	1477	58	14	1036	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.97	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	5	93	52	19	34	148	1641	64	15	1114	23
Peak Hour Factor	0.81	0.81	0.81	0.80	0.80	0.80	0.90	0.90	0.90	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	10	451	91	20	446	314	2348	92	184	1393	586
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.09	0.47	0.47	0.01	0.39	0.39
Sat Flow, veh/h	0	33	1556	0	68	1536	1781	5031	196	1781	3554	1496
Grp Volume(v), veh/h	33	0	93	71	0	34	148	1110	595	15	1114	23
Grp Sat Flow(s),veh/h/ln	34	0	1556	68	0	1536	1781	1702	1823	1781	1777	1496
Q Serve(g_s), s	0.0	0.0	3.1	0.0	0.0	1.1	3.1	17.8	17.8	0.3	19.1	0.7
Cycle Q Clear(g_c), s	20.0	0.0	3.1	20.0	0.0	1.1	3.1	17.8	17.8	0.3	19.1	0.7
Prop In Lane	0.85		1.00	0.73		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	106	0	451	110	0	446	314	1589	851	184	1393	586
V/C Ratio(X)	0.31	0.00	0.21	0.64	0.00	0.08	0.47	0.70	0.70	0.08	0.80	0.04
Avail Cap(c_a), veh/h	106	0	451	110	0	446	678	1589	851	423	1495	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	18.5	29.0	0.0	17.8	13.7	14.5	14.5	13.6	18.6	12.9
Incr Delay (d2), s/veh	2.3	0.0	0.3	13.5	0.0	0.1	2.3	1.6	3.0	0.1	3.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	0.0	2.0	2.9	0.0	0.7	2.1	9.8	10.8	0.2	11.7	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	0.0	18.8	42.5	0.0	17.9	16.1	16.2	17.6	13.7	22.1	13.0
LnGrp LOS	C	A	B	D	A	B	B	B	B	B	C	B
Approach Vol, veh/h		126			105			1853			1152	
Approach Delay, s/veh		21.9			34.5			16.6			21.8	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	33.0		25.0	5.7	38.2		25.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	29.0		20.0	10.0	29.0		20.0				
Max Q Clear Time (g_c+I1), s	5.1	21.1		22.0	2.3	19.8		22.0				
Green Ext Time (p_c), s	0.8	5.9		0.0	0.0	8.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		19.3	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

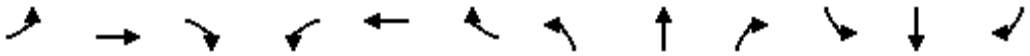
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	11	0	8
Ped. Right-Left Flow Rate (p/h)	1	12	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	196591.6	14365.2	25624.9	28061.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	6140.9	799.0	0.0	699.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	1.99	3.22	3.19
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	3	10	9
Total Flow Rate (veh/h)	126	105	1853	1152
Effct. Green for Bike (s)	15.3	15.3	45.5	29.0
Cross Street Width (ft)	80.0	80.0	36.0	40.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	360	360	1071	682
Bicycle Delay (s/bike)	28.6	28.6	9.2	18.5
Bicycle Compliance	Fair	Fair	Good	Fair
Bicycle LOS Score	2.99	2.96	3.13	2.05
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	73	189	448	344	325	124	1270	400	398	894
v/c Ratio	0.30	0.72	0.54	0.82	0.55	0.59	0.80	0.40	0.79	0.74
Control Delay	47.0	57.6	41.5	53.2	7.9	62.8	41.3	4.1	60.2	38.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	57.6	41.5	53.2	7.9	62.8	41.3	4.1	60.2	38.1
Queue Length 50th (ft)	49	120	149	222	0	90	313	23	147	296
Queue Length 95th (ft)	80	165	218	#422	84	#190	409	81	#239	411
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	369	381	836	420	594	209	1592	1002	507	1252
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.50	0.54	0.82	0.55	0.59	0.80	0.40	0.79	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	91	56	412	141	475	117	1194	376	378	807	43
Future Volume (veh/h)	57	91	56	412	141	475	117	1194	376	378	807	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	117	72	448	425	334	124	1270	400	398	849	45
Peak Hour Factor	0.78	0.78	0.78	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	271	161	99	868	456	369	220	1587	867	472	1109	59
Arrive On Green	0.15	0.15	0.15	0.24	0.24	0.24	0.12	0.31	0.31	0.14	0.32	0.32
Sat Flow, veh/h	1781	1057	651	3563	1870	1514	1781	5106	1547	3456	3425	182
Grp Volume(v), veh/h	73	0	189	448	425	334	124	1270	400	398	440	454
Grp Sat Flow(s),veh/h/ln	1781	0	1708	1781	1870	1514	1781	1702	1547	1728	1777	1830
Q Serve(g_s), s	4.2	0.0	12.1	12.5	25.5	24.6	7.5	26.2	17.8	12.9	25.5	25.6
Cycle Q Clear(g_c), s	4.2	0.0	12.1	12.5	25.5	24.6	7.5	26.2	17.8	12.9	25.5	25.6
Prop In Lane	1.00		0.38	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	271	0	260	868	456	369	220	1587	867	472	575	593
V/C Ratio(X)	0.27	0.00	0.73	0.52	0.93	0.91	0.56	0.80	0.46	0.84	0.77	0.77
Avail Cap(c_a), veh/h	373	0	357	870	457	370	220	1603	872	512	635	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	0.0	46.4	37.5	42.4	42.1	47.3	36.3	15.4	48.3	34.8	34.8
Incr Delay (d2), s/veh	0.4	0.0	3.8	1.7	27.7	27.3	2.1	4.3	1.8	15.2	9.4	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	0.0	9.2	9.3	21.1	17.2	6.1	16.4	15.6	10.5	17.7	18.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	0.0	50.1	39.3	70.2	69.4	49.4	40.6	17.1	63.5	44.2	44.0
LnGrp LOS	D	A	D	D	E	E	D	D	B	E	D	D
Approach Vol, veh/h		262			1207			1794			1292	
Approach Delay, s/veh		48.3			58.5			36.0			50.1	
Approach LOS		D			E			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.4	18.2	41.1		32.9	19.7	39.6				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	12.0	41.0		28.0	17.0	36.0				
Max Q Clear Time (g_c+I1), s		14.1	9.5	27.6		27.5	14.9	28.2				
Green Ext Time (p_c), s		0.8	0.0	9.6		0.4	0.8	7.5				

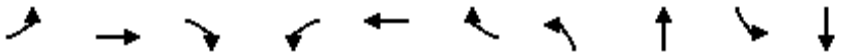
Intersection Summary												
HCM 6th Ctrl Delay			46.6									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	3	3	10
Ped. Right-Left Flow Rate (p/h)	5	1	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53572.2	24545.0	7429.8	21034.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1234.7	2379.2	2056.0	351.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	51.0	51.0	53.8	53.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.15	3.13	3.28	3.53
Pedestrian Crosswalk LOS	B	C	C	D

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	14	7	3
Total Flow Rate (veh/h)	262	1117	1794	1292
Effct. Green for Bike (s)	16.1	28.1	36.1	39.4
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	262	457	587	641
Bicycle Delay (s/bike)	46.6	36.9	30.8	28.5
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.26	4.60	2.25	2.67
Bicycle LOS	C	E	B	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	403	60	290	201	59	166	524	1206	169	1141
v/c Ratio	0.88	0.21	0.60	0.48	0.22	0.44	0.84	0.60	0.68	0.78
Control Delay	59.5	32.4	9.5	39.2	31.9	6.9	48.5	22.7	54.9	32.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.5	32.4	9.5	39.2	31.9	6.9	48.5	22.7	54.9	32.6
Queue Length 50th (ft)	101	28	0	47	28	0	128	159	42	178
Queue Length 95th (ft)	#257	62	62	100	58	35	#307	319	#120	#376
Internal Link Dist (ft)		461			455			697		1255
Turn Bay Length (ft)	240		240	300		200	300		200	
Base Capacity (vph)	456	315	504	1411	766	749	622	2019	249	1459
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.19	0.58	0.14	0.08	0.22	0.84	0.60	0.68	0.78

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	363	54	261	181	53	149	508	1119	50	154	881	157
Future Volume (veh/h)	363	54	261	181	53	149	508	1119	50	154	881	157
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	403	60	290	201	59	166	524	1154	52	169	968	173
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	453	389	322	312	312	259	600	1907	86	243	1206	215
Arrive On Green	0.13	0.21	0.21	0.09	0.17	0.17	0.17	0.38	0.38	0.07	0.28	0.28
Sat Flow, veh/h	3456	1870	1550	3456	1870	1548	3456	5003	225	3456	4341	773
Grp Volume(v), veh/h	403	60	290	201	59	166	524	785	421	169	758	383
Grp Sat Flow(s),veh/h/ln	1728	1870	1550	1728	1870	1548	1728	1702	1825	1728	1702	1711
Q Serve(g_s), s	9.6	2.2	15.3	4.7	2.3	8.4	12.4	15.6	15.6	4.0	17.4	17.5
Cycle Q Clear(g_c), s	9.6	2.2	15.3	4.7	2.3	8.4	12.4	15.6	15.6	4.0	17.4	17.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		0.45
Lane Grp Cap(c), veh/h	453	389	322	312	312	259	600	1298	696	243	946	475
V/C Ratio(X)	0.89	0.15	0.90	0.64	0.19	0.64	0.87	0.60	0.61	0.70	0.80	0.81
Avail Cap(c_a), veh/h	453	389	322	1401	758	627	618	1339	718	247	974	490
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.8	27.2	32.4	36.8	30.0	32.6	33.8	20.9	20.9	38.1	28.1	28.2
Incr Delay (d2), s/veh	19.1	0.2	26.7	2.2	0.3	2.7	12.9	1.5	2.7	8.1	6.0	11.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.9	1.8	12.7	3.7	1.9	5.9	9.9	9.8	10.6	3.4	11.7	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.9	27.4	59.1	39.1	30.3	35.2	46.6	22.3	23.6	46.2	34.2	39.8
LnGrp LOS	D	C	E	D	C	D	D	C	C	D	C	D
Approach Vol, veh/h		753			426			1730			1310	
Approach Delay, s/veh		54.3			36.4			30.0			37.3	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	29.3	12.6	22.4	10.9	38.0	16.0	19.0
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	15.0	24.0	34.0	11.0	6.0	33.0	11.0	34.0
Max Q Clear Time (g_c+I1), s	14.4	19.5	6.7	17.3	6.0	17.6	11.6	10.4
Green Ext Time (p_c), s	0.2	3.7	0.9	0.0	0.0	11.3	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	37.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	100.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	6	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	0	5	0	0
Ped. Right-Left Flow Rate (p/h)	2	2	0	5
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	44945.1	7490.9	12818.0	12818.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	4317.3	1659.3	0.0	2253.3
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	43.9	43.9	52.5	43.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.75	2.59	3.32	3.30
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	3	3	3
Total Flow Rate (veh/h)	753	426	1730	1310
Effct. Green for Bike (s)	12.7	11.9	33.5	24.3
Cross Street Width (ft)	100.0	99.0	80.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	242	227	638	463
Bicycle Delay (s/bike)	40.6	41.3	24.4	31.1
Bicycle Compliance	Poor	Poor	Fair	Poor
Bicycle LOS Score	4.33	2.49	2.45	1.91
Bicycle LOS	D	B	B	B

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	78	95	1959	40	1570
v/c Ratio	0.44	0.39	0.76	0.36	0.56
Control Delay	49.6	13.9	11.9	54.8	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	49.6	13.9	11.9	54.8	4.8
Queue Length 50th (ft)	48	0	393	25	142
Queue Length 95th (ft)	79	31	564	61	223
Internal Link Dist (ft)	233		1200		376
Turn Bay Length (ft)		175		100	
Base Capacity (vph)	649	641	2574	112	2953
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.12	0.15	0.76	0.36	0.53

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	60	73	1730	53	36	1413
Future Volume (veh/h)	60	73	1730	53	36	1413
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	95	1901	58	40	1570
Peak Hour Factor	0.77	0.77	0.91	0.91	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	157	140	2398	73	79	2784
Arrive On Green	0.09	0.09	0.68	0.68	0.04	0.78
Sat Flow, veh/h	1781	1585	3611	107	1781	3647
Grp Volume(v), veh/h	78	95	954	1005	40	1570
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1847	1781	1777
Q Serve(g_s), s	3.3	4.6	29.0	29.8	1.7	13.5
Cycle Q Clear(g_c), s	3.3	4.6	29.0	29.8	1.7	13.5
Prop In Lane	1.00	1.00		0.06	1.00	
Lane Grp Cap(c), veh/h	157	140	1211	1259	79	2784
V/C Ratio(X)	0.50	0.68	0.79	0.80	0.51	0.56
Avail Cap(c_a), veh/h	796	708	1565	1627	138	3609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	34.8	8.6	8.7	36.7	3.3
Incr Delay (d2), s/veh	2.4	5.7	2.1	2.2	4.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	3.5	12.3	13.0	1.5	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.6	40.4	10.7	10.9	41.6	3.5
LnGrp LOS	D	D	B	B	D	A
Approach Vol, veh/h	173		1959			1610
Approach Delay, s/veh	38.7		10.8			4.4
Approach LOS	D		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	8.0	59.0			67.0	11.6
Change Period (Y+Rc), s	4.5	5.4			5.4	4.7
Max Green Setting (Gmax), s	6.1	69.2			79.8	35.1
Max Q Clear Time (g_c+I1), s	3.7	31.8			15.5	6.6
Green Ext Time (p_c), s	0.0	21.7			18.7	0.5

Intersection Summary		
HCM 6th Ctrl Delay	9.4	
HCM 6th LOS	A	

Approach	WB	NB	SB
Crosswalk Length (ft)	35.9	59.9	60.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.04	3.47	3.38
Pedestrian Crosswalk LOS	B	C	C

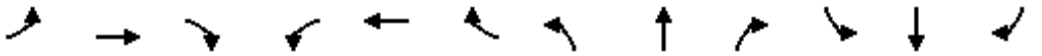
Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	173	1959	1610
Effct. Green for Bike (s)	9.7	70.2	76.3
Cross Street Width (ft)	60.1	35.9	59.9
Through Lanes Number	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	155	1123	1221
Bicycle Delay (s/bike)	53.2	12.0	9.5
Bicycle Compliance	Poor	Fair	Good
Bicycle LOS Score	2.76	3.73	3.80
Bicycle LOS	C	D	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	7	82	152	78	68	1793	49	40	1491	45
v/c Ratio	0.21	0.03	0.26	0.74	0.26	0.28	0.76	0.05	0.21	0.65	0.04
Control Delay	35.8	31.3	8.1	59.0	10.6	5.8	17.4	1.7	6.9	13.8	0.9
Queue Delay	0.0	0.0	0.2	1.0	0.0	0.0	47.8	0.0	0.0	0.1	0.0
Total Delay	35.8	31.3	8.3	60.1	10.6	5.8	65.1	1.7	6.9	13.9	0.9
Queue Length 50th (ft)	22	4	0	89	1	8	528	1	5	275	0
Queue Length 95th (ft)	43	14	25	130	31	m8	#712	m4	17	450	6
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	442	627	594	472	586	301	2353	1045	246	2286	1034
Starvation Cap Reductn	0	0	0	0	0	0	779	0	0	0	0
Spillback Cap Reductn	0	0	184	157	0	0	0	0	0	96	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.01	0.20	0.48	0.13	0.23	1.14	0.05	0.16	0.68	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	6	67	126	2	63	64	1685	46	38	1416	43
Future Volume (veh/h)	33	6	67	126	2	63	64	1685	46	38	1416	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	7	0	152	2	76	68	1793	49	40	1491	45
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	249		258	5	206	291	2361	1026	259	2327	1022
Arrive On Green	0.13	0.13	0.00	0.13	0.13	0.13	0.06	0.88	0.88	0.03	0.65	0.65
Sat Flow, veh/h	1321	1870	1585	1409	41	1550	1781	3554	1544	1781	3554	1560
Grp Volume(v), veh/h	40	7	0	152	0	78	68	1793	49	40	1491	45
Grp Sat Flow(s),veh/h/ln	1321	1870	1585	1409	0	1591	1781	1777	1544	1781	1777	1560
Q Serve(g_s), s	2.7	0.3	0.0	10.0	0.0	4.2	1.1	17.0	0.4	0.7	23.7	1.0
Cycle Q Clear(g_c), s	7.0	0.3	0.0	10.3	0.0	4.2	1.1	17.0	0.4	0.7	23.7	1.0
Prop In Lane	1.00		1.00	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	249		258	0	211	291	2361	1026	259	2327	1022
V/C Ratio(X)	0.21	0.03		0.59	0.00	0.37	0.23	0.76	0.05	0.15	0.64	0.04
Avail Cap(c_a), veh/h	462	630		546	0	536	382	2361	1026	367	2327	1022
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.54	0.54	0.54	0.81	0.81	0.81
Uniform Delay (d), s/veh	40.7	35.8	0.0	40.3	0.0	37.6	8.0	2.8	1.9	6.3	9.8	5.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.8	0.0	0.4	0.1	1.3	0.0	0.2	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.3	0.0	6.3	0.0	3.0	0.6	4.3	0.2	0.4	11.5	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	35.9	0.0	41.1	0.0	38.0	8.1	4.1	1.9	6.5	10.9	5.9
LnGrp LOS	D	D		D	A	D	A	A	A	A	B	A
Approach Vol, veh/h		47	A		230			1910			1576	
Approach Delay, s/veh		40.2			40.1			4.2			10.6	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	68.2		17.6	8.3	69.1		17.6				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	9.0	38.0		32.0	9.0	38.0		32.0				
Max Q Clear Time (g_c+I1), s	3.1	25.7		12.3	2.7	19.0		9.0				
Green Ext Time (p_c), s	0.0	11.4		0.3	0.0	18.2		0.0				

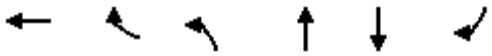
Intersection Summary			
HCM 6th Ctrl Delay		9.5	
HCM 6th LOS		A	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	39.8	39.8	39.8	39.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.49	2.11	3.46	3.32
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	4
Total Flow Rate (veh/h)	129	230	1910	1576
Effct. Green for Bike (s)	13.9	13.9	63.2	61.4
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	7.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	293	293	1331	1293
Bicycle Delay (s/bike)	34.6	34.6	5.3	6.0
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.09	3.32	2.17	0.87
Bicycle LOS	C	C	B	A

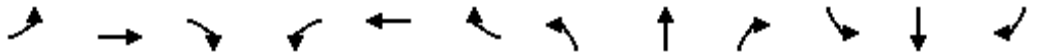


Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	311	384	106	1656	917	721
v/c Ratio	0.62	0.78	0.53	0.78	0.59	0.80
Control Delay	32.6	34.7	53.4	13.7	24.9	18.2
Queue Delay	0.0	0.1	0.0	48.6	1.0	0.6
Total Delay	32.6	34.7	53.4	62.3	25.9	18.8
Queue Length 50th (ft)	160	174	61	179	154	74
Queue Length 95th (ft)	199	228	m100	#621	280	#375
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	763	716	200	2130	1549	897
Starvation Cap Reductn	0	0	0	0	358	30
Spillback Cap Reductn	0	17	0	909	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.55	0.53	1.36	0.77	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



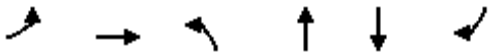
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	269	8	342	92	1441	0	0	844	663
Future Volume (veh/h)	0	0	0	269	8	342	92	1441	0	0	844	663
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				302	9	384	106	1656	0	0	917	721
Peak Hour Factor				0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				494	15	452	123	2135	0	0	1724	701
Arrive On Green				0.30	0.30	0.30	0.07	0.60	0.00	0.00	0.97	0.97
Sat Flow, veh/h				1622	48	1485	1668	3647	0	0	3647	1445
Grp Volume(v), veh/h				311	0	384	106	1656	0	0	917	721
Grp Sat Flow(s),veh/h/ln				1671	0	1485	1668	1777	0	0	1777	1445
Q Serve(g_s), s				15.1	0.0	23.1	6.0	33.1	0.0	0.0	1.5	46.1
Cycle Q Clear(g_c), s				15.1	0.0	23.1	6.0	33.1	0.0	0.0	1.5	46.1
Prop In Lane				0.97		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				509	0	452	123	2135	0	0	1724	701
V/C Ratio(X)				0.61	0.00	0.85	0.86	0.78	0.00	0.00	0.53	1.03
Avail Cap(c_a), veh/h				774	0	688	123	2135	0	0	1724	701
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	0.72	0.72
Uniform Delay (d), s/veh				28.2	0.0	31.0	43.5	14.2	0.0	0.0	0.8	1.4
Incr Delay (d2), s/veh				1.2	0.0	6.3	35.6	2.2	0.0	0.0	0.9	36.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				10.1	0.0	13.7	6.3	16.4	0.0	0.0	0.9	11.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				29.4	0.0	37.3	79.1	16.4	0.0	0.0	1.6	37.7
LnGrp LOS				C	A	D	E	B	A	A	A	F
Approach Vol, veh/h					695			1762			1638	
Approach Delay, s/veh					33.8			20.2			17.5	
Approach LOS					C			C			B	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	11.0	51.1				62.1		32.9				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	7.0	31.0				42.0		44.0				
Max Q Clear Time (g_c+I1), s	8.0	48.1				35.1		25.1				
Green Ext Time (p_c), s	0.0	0.0				5.3		3.9				

Intersection Summary		
HCM 6th Ctrl Delay		21.4
HCM 6th LOS		C

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	630.0	133.2	11000.7	581.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.3	2436.3	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.32	2.24	3.18	3.39
Pedestrian Crosswalk LOS	B	B	C	C

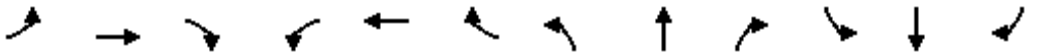
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	7
Total Flow Rate (veh/h)	0	695	1762	1638
Effct. Green for Bike (s)	0.0	28.8	57.2	41.6
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	606	1204	876
Bicycle Delay (s/bike)	0.0	23.1	7.5	15.1
Bicycle Compliance		Fair	Good	Fair
Bicycle LOS Score	0.00	2.69	2.38	2.02
Bicycle LOS		C	B	B



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	406	381	190	985	907	361
v/c Ratio	0.89	0.73	0.62	0.46	0.68	0.33
Control Delay	54.7	29.0	44.4	11.6	21.9	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	29.0	44.4	11.6	21.9	2.5
Queue Length 50th (ft)	241	146	105	164	227	50
Queue Length 95th (ft)	#413	261	175	212	258	0
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	475	539	308	2125	1329	1122
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.71	0.62	0.46	0.68	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	575	0	149	0	0	0	182	946	0	0	789	314
Future Volume (veh/h)	575	0	149	0	0	0	182	946	0	0	789	314
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	394	324	162	0	0	0	190	985	0	0	907	361
Peak Hour Factor	0.92	0.92	0.92	0.25	0.25	0.25	0.96	0.96	0.96	0.87	0.87	0.87
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	496	350	175	0	2	0	202	2123	0	0	1562	1076
Arrive On Green	0.30	0.30	0.30	0.00	0.00	0.00	0.12	0.60	0.00	0.00	0.29	0.29
Sat Flow, veh/h	1668	1176	588	0	1870	0	1668	3647	0	0	3647	1443
Grp Volume(v), veh/h	394	0	486	0	0	0	190	985	0	0	907	361
Grp Sat Flow(s),veh/h/ln	1668	0	1764	0	1870	0	1668	1777	0	0	1777	1443
Q Serve(g_s), s	20.6	0.0	25.4	0.0	0.0	0.0	10.7	14.7	0.0	0.0	20.6	9.5
Cycle Q Clear(g_c), s	20.6	0.0	25.4	0.0	0.0	0.0	10.7	14.7	0.0	0.0	20.6	9.5
Prop In Lane	1.00		0.33	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	496	0	524	0	2	0	202	2123	0	0	1562	1076
V/C Ratio(X)	0.79	0.00	0.93	0.00	0.00	0.00	0.94	0.46	0.00	0.00	0.58	0.34
Avail Cap(c_a), veh/h	509	0	539	0	79	0	202	2123	0	0	1562	1076
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.78	0.78
Uniform Delay (d), s/veh	30.7	0.0	32.4	0.0	0.0	0.0	41.4	10.6	0.0	0.0	26.1	5.7
Incr Delay (d2), s/veh	8.3	0.0	22.0	0.0	0.0	0.0	46.7	0.7	0.0	0.0	1.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.2	0.0	19.8	0.0	0.0	0.0	11.1	8.7	0.0	0.0	13.5	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	0.0	54.4	0.0	0.0	0.0	88.1	11.4	0.0	0.0	27.3	6.4
LnGrp LOS	D	A	D	A	A	A	F	B	A	A	C	A
Approach Vol, veh/h		880			0			1175			1268	
Approach Delay, s/veh		47.5			0.0			23.8			21.3	
Approach LOS		D						C			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	15.0	47.8		32.2		62.8		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	11.5	33.0		29.0		48.0		4.0				
Max Q Clear Time (g_c+I1), s	12.7	22.6		27.4		16.7		0.0				
Green Ext Time (p_c), s	0.0	5.4		0.9		7.7		0.0				

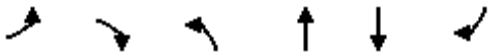
Intersection Summary												
HCM 6th Ctrl Delay			29.1									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	589815.0	7990.2	32375.7	589766.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	8363.4	1986.5	0.0	0.0
Crosswalk Circulation Code	A	A	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.61	1.43	2.97	3.15
Pedestrian Crosswalk LOS	C	A	C	C

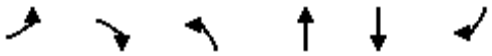
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	8
Total Flow Rate (veh/h)	787	0	1175	1268
Effct. Green for Bike (s)	27.9	4.3	57.1	35.7
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	587	91	1202	752
Bicycle Delay (s/bike)	23.7	43.3	7.6	18.6
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.93	1.39	2.31	2.38
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	932	86	68	285	586	1020
v/c Ratio	0.84	0.14	0.23	0.29	0.82	0.92
Control Delay	37.7	10.7	9.8	10.5	32.3	24.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	10.7	9.8	10.5	32.3	24.1
Queue Length 50th (ft)	236	7	15	72	268	284
Queue Length 95th (ft)	#469	46	30	107	404	#584
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		180	200			
Base Capacity (vph)	1110	595	340	1509	1205	1104
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.14	0.20	0.19	0.49	0.92

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	857	79	59	248	563	979
Future Volume (veh/h)	857	79	59	248	563	979
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	932	86	68	285	586	1020
Peak Hour Factor	0.92	0.92	0.87	0.87	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	895	427	243	1153	956	1197
Arrive On Green	0.26	0.26	0.04	0.62	0.51	0.51
Sat Flow, veh/h	3456	1648	1781	1870	1870	1540
Grp Volume(v), veh/h	932	86	68	285	586	1020
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1540
Q Serve(g_s), s	25.0	3.9	1.6	6.7	21.5	43.6
Cycle Q Clear(g_c), s	25.0	3.9	1.6	6.7	21.5	43.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	895	427	243	1153	956	1197
V/C Ratio(X)	1.04	0.20	0.28	0.25	0.61	0.85
Avail Cap(c_a), veh/h	895	427	350	1153	969	1209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	27.9	12.7	8.4	16.8	7.6
Incr Delay (d2), s/veh	41.2	0.6	0.6	0.1	1.3	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	21.8	7.4	1.1	4.1	13.5	34.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	77.0	28.6	13.3	8.5	18.1	13.7
LnGrp LOS	F	C	B	A	B	B
Approach Vol, veh/h	1018			353	1606	
Approach Delay, s/veh	72.9			9.4	15.3	
Approach LOS	E			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		65.5		31.0	10.2	55.3
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0		25.0	10.0	50.0
Max Q Clear Time (g_c+I1), s		8.7		27.0	3.6	45.6
Green Ext Time (p_c), s		1.9		0.0	0.1	3.7

Intersection Summary		
HCM 6th Ctrl Delay		34.3
HCM 6th LOS		C

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196586.8	0.0	196568.5
Right Corner Quality of Service	A	-	A
Ped. Circulation Area (sq.ft)	566.1	0.0	0.0
Crosswalk Circulation Code	A	-	-
Pedestrian Delay (s/p)	43.8	43.8	51.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.98	2.45	3.06
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	0	8	7
Total Flow Rate (veh/h)	1018	353	1606
Effct. Green for Bike (s)	26.1	42.1	31.2
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	507	817	606
Bicycle Delay (s/bike)	28.7	18.1	25.1
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	1.88	1.87	3.92
Bicycle LOS	B	B	D

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	98	944	218	0	1515
Future Vol, veh/h	0	98	944	218	0	1515
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	95	95	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	113	994	229	0	1629

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	612	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	436	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	436	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	436	-
HCM Lane V/C Ratio	-	-	0.258	-
HCM Control Delay (s)	-	-	16.1	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	633618.8
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2459
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	633620.25
Avg Ped Delay (s)	633618.75

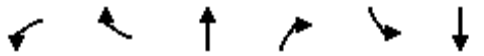
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	633618.8
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2459
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	633620.25
Avg Ped Delay (s)	633618.75

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	717	1209	123	1347
v/c Ratio	0.78	0.61	0.68	0.67
Control Delay	26.7	11.5	35.6	12.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.7	11.5	35.6	12.8
Queue Length 50th (ft)	129	149	32	181
Queue Length 95th (ft)	183	255	#136	305
Internal Link Dist (ft)	742	269		1054
Turn Bay Length (ft)			170	
Base Capacity (vph)	1245	2120	195	2154
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.58	0.57	0.63	0.63

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	402	236	1003	145	112	1226
Future Volume (vph)	402	236	1003	145	112	1226
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		6.0		6.0	6.0
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.94		0.98		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3275		3462		1770	3539
Flt Permitted	0.97		1.00		0.17	1.00
Satd. Flow (perm)	3275		3462		322	3539
Peak-hour factor, PHF	0.89	0.89	0.95	0.95	0.91	0.91
Adj. Flow (vph)	452	265	1056	153	123	1347
RTOR Reduction (vph)	57	0	14	0	0	0
Lane Group Flow (vph)	660	0	1195	0	123	1347
Confl. Peds. (#/hr)	1	6				
Confl. Bikes (#/hr)				3		
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	17.7		37.9		37.9	37.9
Effective Green, g (s)	17.7		37.9		37.9	37.9
Actuated g/C Ratio	0.27		0.57		0.57	0.57
Clearance Time (s)	5.0		6.0		6.0	6.0
Vehicle Extension (s)	2.0		5.5		5.5	5.5
Lane Grp Cap (vph)	870		1970		183	2013
v/s Ratio Prot	c0.20		0.35			0.38
v/s Ratio Perm					c0.38	
v/c Ratio	0.76		0.61		0.67	0.67
Uniform Delay, d1	22.5		9.4		10.0	10.0
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	3.4		0.9		13.0	1.2
Delay (s)	25.9		10.3		23.1	11.2
Level of Service	C		B		C	B
Approach Delay (s)	25.9		10.3			12.2
Approach LOS	C		B			B

Intersection Summary			
HCM 2000 Control Delay	14.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	66.6	Sum of lost time (s)	11.0
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	0	0	5
Ped. Right-Left Flow Rate (p/h)	0	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	5368.8	32365.9	4623.2
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	17086.7	2191.0
Crosswalk Circulation Code	-	A	A
Pedestrian Delay (s/p)	29.9	27.3	29.9
Pedestrian Compliance Code	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.30	3.28	3.02
Pedestrian Crosswalk LOS	B	C	C

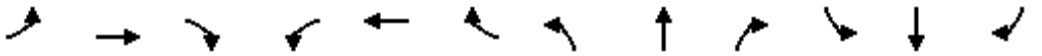
Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	7	7
Total Flow Rate (veh/h)	717	1209	1470
Effct. Green for Bike (s)	17.7	38.0	38.0
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	472	1013	1013
Bicycle Delay (s/bike)	22.0	9.2	9.2
Bicycle Compliance	Fair	Good	Good
Bicycle LOS Score	1.57	2.19	2.69
Bicycle LOS	B	B	C

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	53	30	448	442	683	26	812	588	451	921
v/c Ratio	0.36	0.14	0.82	0.80	0.82	0.29	0.82	0.56	1.29	0.57
Control Delay	67.2	1.4	55.2	53.9	21.5	75.3	53.5	6.5	194.3	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.2	1.4	55.2	53.9	21.5	75.3	53.5	6.5	194.3	32.3
Queue Length 50th (ft)	47	0	376	369	177	23	358	75	~548	338
Queue Length 95th (ft)	63	0	540	531	295	61	#551	138	#857	502
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		100	165	
Base Capacity (vph)	243	289	662	666	905	153	1115	1143	349	1612
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.10	0.68	0.66	0.75	0.17	0.73	0.51	1.29	0.57

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	20	19	707	23	560	25	771	559	392	756	45
Future Volume (veh/h)	13	20	19	707	23	560	25	771	559	392	756	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	32	30	882	0	0	26	812	588	451	869	52
Peak Hour Factor	0.63	0.63	0.63	0.82	0.82	0.82	0.95	0.95	0.95	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	57	77	981	0		43	1143	934	373	1723	103
Arrive On Green	0.05	0.05	0.05	0.28	0.00	0.00	0.02	0.32	0.32	0.21	0.51	0.51
Sat Flow, veh/h	727	1107	1505	3563	0	1585	1781	3554	1545	1781	3400	203
Grp Volume(v), veh/h	53	0	30	882	0	0	26	812	588	451	454	467
Grp Sat Flow(s),veh/h/ln	1834	0	1505	1781	0	1585	1781	1777	1545	1781	1777	1826
Q Serve(g_s), s	3.4	0.0	2.3	28.5	0.0	0.0	1.7	24.0	29.5	25.0	20.2	20.2
Cycle Q Clear(g_c), s	3.4	0.0	2.3	28.5	0.0	0.0	1.7	24.0	29.5	25.0	20.2	20.2
Prop In Lane	0.40		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	94	0	77	981	0		43	1143	934	373	901	926
V/C Ratio(X)	0.57	0.00	0.39	0.90	0.00		0.60	0.71	0.63	1.21	0.50	0.50
Avail Cap(c_a), veh/h	230	0	189	1492	0		164	1191	954	373	901	926
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.3	0.0	54.8	41.7	0.0	0.0	57.7	35.6	15.6	47.2	19.5	19.5
Incr Delay (d2), s/veh	2.0	0.0	1.2	3.7	0.0	0.0	5.0	2.5	1.9	116.6	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.0	1.6	18.3	0.0	0.0	1.5	15.8	25.0	33.9	12.9	13.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	0.0	56.0	45.4	0.0	0.0	62.6	38.1	17.5	163.8	20.4	20.4
LnGrp LOS	E	A	E	D	A		E	D	B	F	C	C
Approach Vol, veh/h		83			882	A		1426			1372	
Approach Delay, s/veh		56.9			45.4			30.1			67.6	
Approach LOS		E			D			C			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	28.5	42.9		10.6	6.4	65.0		37.4				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	25.0	40.0		15.0	11.0	40.0		50.0				
Max Q Clear Time (g_c+I1), s	27.0	31.5		5.4	3.7	22.2		30.5				
Green Ext Time (p_c), s	0.0	6.9		0.1	0.0	9.3		2.4				

Intersection Summary			
HCM 6th Ctrl Delay		47.9	
HCM 6th LOS		D	

Notes

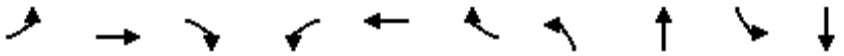
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	3	6	1
Ped. Right-Left Flow Rate (p/h)	1	6	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	1	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	58924.0	53567.3	36848.0	117930.1
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2262.6	0.0	1117.9	987.7
Crosswalk Circulation Code	A	F	A	A
Pedestrian Delay (s/p)	65.7	65.7	65.7	65.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.05	3.16	3.65	3.08
Pedestrian Crosswalk LOS	B	C	D	C

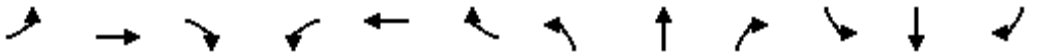
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	8	3	10
Total Flow Rate (veh/h)	83	1573	1426	1372
Effct. Green for Bike (s)	10.7	43.0	36.9	60.4
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	146	585	502	822
Bicycle Delay (s/bike)	63.2	36.9	41.3	25.6
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.74	5.16	2.43	2.37
Bicycle LOS	C	E	B	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	81	73	139	254	405	252	533	1034	135	851
v/c Ratio	0.64	0.21	0.28	0.93	0.78	0.41	0.88	0.90	0.80	0.97
Control Delay	64.9	30.0	1.4	78.4	39.9	5.5	53.4	39.4	73.9	57.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.9	30.0	1.4	78.4	39.9	5.5	53.4	39.4	73.9	57.4
Queue Length 50th (ft)	44	33	0	140	205	0	148	280	74	243
Queue Length 95th (ft)	#86	57	0	#174	201	8	#252	#431	#181	#396
Internal Link Dist (ft)		1706			363			1325		863
Turn Bay Length (ft)	100		100	105		410	300		210	
Base Capacity (vph)	126	464	580	273	597	672	612	1164	168	878
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.16	0.24	0.93	0.68	0.38	0.87	0.89	0.80	0.97

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	55	104	165	263	164	480	841	90	128	746	63
Future Volume (veh/h)	61	55	104	165	263	164	480	841	90	128	746	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	81	73	139	254	405	252	533	934	100	135	785	66
Peak Hour Factor	0.75	0.75	0.75	0.65	0.65	0.65	0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	280	236	284	469	396	611	1095	117	168	849	71
Arrive On Green	0.06	0.15	0.15	0.16	0.25	0.25	0.18	0.34	0.34	0.09	0.26	0.26
Sat Flow, veh/h	1781	1870	1579	1781	1870	1581	3456	3224	345	1781	3305	278
Grp Volume(v), veh/h	81	73	139	254	405	252	533	515	519	135	422	429
Grp Sat Flow(s),veh/h/ln	1781	1870	1579	1781	1870	1581	1728	1777	1792	1781	1777	1806
Q Serve(g_s), s	3.7	2.8	6.7	11.4	16.9	11.6	12.3	22.0	22.0	6.1	18.9	18.9
Cycle Q Clear(g_c), s	3.7	2.8	6.7	11.4	16.9	11.6	12.3	22.0	22.0	6.1	18.9	18.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.15
Lane Grp Cap(c), veh/h	104	280	236	284	469	396	611	603	609	168	456	464
V/C Ratio(X)	0.78	0.26	0.59	0.90	0.86	0.64	0.87	0.85	0.85	0.80	0.92	0.92
Avail Cap(c_a), veh/h	131	481	406	284	619	523	635	610	615	175	457	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	30.7	32.4	33.6	29.2	27.3	32.7	25.1	25.1	36.2	29.5	29.6
Incr Delay (d2), s/veh	20.4	0.2	0.9	28.3	7.9	0.6	12.1	11.4	11.4	21.7	24.8	24.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.8	2.2	4.5	11.2	12.7	7.5	9.8	15.6	15.7	6.3	15.9	16.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.3	30.9	33.2	61.9	37.1	27.9	44.7	36.5	36.4	58.0	54.3	54.1
LnGrp LOS	E	C	C	E	D	C	D	D	D	E	D	D
Approach Vol, veh/h		293			911			1567			986	
Approach Delay, s/veh		39.6			41.5			39.3			54.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	33.7	17.0	18.2	19.4	27.0	8.8	26.4
Change Period (Y+Rc), s	5.0	6.0	4.0	* 6	5.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	8.0	28.0	13.0	* 21	15.0	21.0	6.0	27.0
Max Q Clear Time (g_c+I1), s	8.1	24.0	13.4	8.7	14.3	20.9	5.7	18.9
Green Ext Time (p_c), s	0.0	2.6	0.0	0.4	0.2	0.1	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	43.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	90.0	70.0	80.0	70.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	4	6	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	1	0	0	1
Ped. Right-Left Flow Rate (p/h)	2	3	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	17982.7	22456.7	17982.7	22489.2
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	5216.7	5114.0	7015.8	13673.0
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	34.7	34.7	34.7	34.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.73	2.57	3.11	3.00
Pedestrian Crosswalk LOS	C	C	C	C

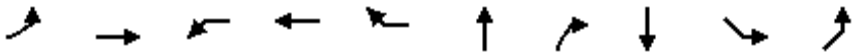
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	15	8
Total Flow Rate (veh/h)	293	911	1567	986
Effct. Green for Bike (s)	15.4	23.8	27.9	21.1
Cross Street Width (ft)	80.0	80.0	62.0	75.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	342	529	620	469
Bicycle Delay (s/bike)	30.9	24.4	21.6	26.5
Bicycle Compliance	Poor	Fair	Fair	Fair
Bicycle LOS Score	1.98	3.00	2.51	2.23
Bicycle LOS	B	C	C	B

Intersection	
Intersection Delay, s/veh	22.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	537	18	0	6	137	9	0	15
Future Vol, veh/h	0	0	0	0	537	18	0	6	137	9	0	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	10	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	584	20	0	7	149	10	0	16
Number of Lanes	0	0	0	0	1	1	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	27	9.4	8.7
HCM LOS	D	A	A

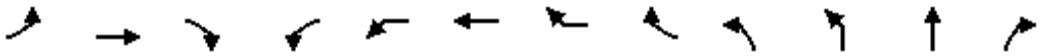
Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	0%	38%
Vol Thru, %	4%	100%	0%	0%
Vol Right, %	96%	0%	100%	62%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	143	537	18	24
LT Vol	0	0	0	9
Through Vol	6	537	0	0
RT Vol	137	0	18	15
Lane Flow Rate	155	584	20	26
Geometry Grp	2	7	7	2
Degree of Util (X)	0.215	0.828	0.023	0.039
Departure Headway (Hd)	4.976	5.108	4.269	5.44
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	720	706	833	654
Service Time	3.019	2.863	2.024	3.51
HCM Lane V/C Ratio	0.215	0.827	0.024	0.04
HCM Control Delay	9.4	27.7	7.1	8.7
HCM Lane LOS	A	D	A	A
HCM 95th-tile Q	0.8	9	0.1	0.1



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	28	920	176	1174	552	41	80	231	20	20
v/c Ratio	0.30	0.78	0.83	0.69	0.68	0.13	0.16	0.73	0.14	0.06
Control Delay	52.1	33.5	70.6	25.9	21.8	27.7	0.6	44.4	44.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	33.5	70.6	25.9	21.8	27.7	0.6	44.4	44.9	0.3
Queue Length 50th (ft)	11	163	70	140	76	13	0	85	8	0
Queue Length 95th (ft)	#49	#467	#278	#638	#505	47	0	213	38	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	94	1180	212	1702	811	494	681	487	139	436
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.78	0.83	0.69	0.68	0.08	0.12	0.47	0.14	0.05

Intersection Summary

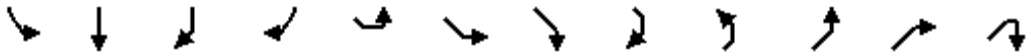
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	24	796	4	79	88	1115	271	254	8	21	6	68
Future Volume (vph)	24	796	4	79	88	1115	271	254	8	21	6	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00				1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.95				1.00	0.97
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85				1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00	1.00				0.96	1.00
Satd. Flow (prot)	1770	3536			1770	3539	1506				1783	1536
Flt Permitted	0.95	1.00			0.95	1.00	1.00				0.74	1.00
Satd. Flow (perm)	1770	3536			1770	3539	1506				1371	1536
Peak-hour factor, PHF	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.85	0.85	0.85	0.85
Adj. Flow (vph)	28	915	5	83	93	1174	285	267	9	25	7	80
RTOR Reduction (vph)	0	0	0	0	0	0	108	0	0	0	0	63
Lane Group Flow (vph)	28	920	0	0	176	1174	444	0	0	0	41	17
Confl. Peds. (#/hr)			4				1	1	2	2		12
Confl. Bikes (#/hr)			1				14	14				1
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	Perm	NA	Perm
Protected Phases	5	2		1	1	6					8	
Permitted Phases							6		8	8		8
Actuated Green, G (s)	1.2	30.6			9.5	37.9	37.9				18.4	18.4
Effective Green, g (s)	1.2	30.6			9.5	37.9	37.9				18.4	18.4
Actuated g/C Ratio	0.01	0.34			0.11	0.42	0.42				0.21	0.21
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0				3.5	3.5
Lane Grp Cap (vph)	23	1213			188	1503	639				282	316
v/s Ratio Prot	0.02	0.26			c0.10	c0.33						
v/s Ratio Perm							0.30				0.03	0.01
v/c Ratio	1.22	0.76			0.94	0.78	0.70				0.15	0.05
Uniform Delay, d1	44.0	26.0			39.5	22.1	20.9				29.0	28.4
Progression Factor	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Incremental Delay, d2	261.7	3.3			46.7	3.1	4.2				0.3	0.1
Delay (s)	305.7	29.3			86.3	25.2	25.1				29.2	28.5
Level of Service	F	C			F	C	C				C	C
Approach Delay (s)		37.5				30.8					28.7	
Approach LOS		D				C					C	

Intersection Summary			
HCM 2000 Control Delay	34.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	89.2	Sum of lost time (s)	27.0
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

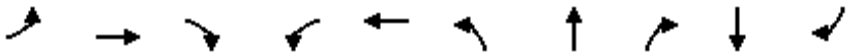


Movement	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	142	5	32	20	5	5	5	5	5	5	5	5
Future Volume (vph)	142	5	32	20	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0				5.0				5.0		
Lane Util. Factor		1.00				1.00				1.00		
Frpb, ped/bikes		1.00				1.00				1.00		
Flpb, ped/bikes		0.99				1.00				1.00		
Frt		0.96				0.93				0.93		
Flt Protected		0.97				0.98				0.98		
Satd. Flow (prot)		1714				1695				1695		
Flt Permitted		0.76				1.00				0.98		
Satd. Flow (perm)		1353				1737				1695		
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	6	37	23	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	0	231	0	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)	12		2	2								
Confl. Bikes (#/hr)												
Turn Type	Perm	NA			Perm	Prot			Perm	Prot		
Protected Phases		4				7				3		
Permitted Phases	4				7				3			
Actuated Green, G (s)		18.4				1.9				2.8		
Effective Green, g (s)		18.4				1.9				2.8		
Actuated g/C Ratio		0.21				0.02				0.03		
Clearance Time (s)		5.0				5.0				5.0		
Vehicle Extension (s)		3.5				2.0				1.5		
Lane Grp Cap (vph)		279				36				53		
v/s Ratio Prot												
v/s Ratio Perm		c0.17				c0.01				0.00		
v/c Ratio		0.83				0.56				0.01		
Uniform Delay, d1		33.9				43.2				41.9		
Progression Factor		1.00				1.00				1.00		
Incremental Delay, d2		18.4				10.1				0.0		
Delay (s)		52.3				53.3				41.9		
Level of Service		D				D				D		
Approach Delay (s)		52.3				53.3				41.9		
Approach LOS		D				D				D		

Intersection Summary

Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29673.7	11556.4	0.0	72900.0	24282.5
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2869.7	5032.2	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	42.1	42.1	42.1	42.1	42.1	42.1
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.95	3.44	2.02	1.98	1.86	1.79
Pedestrian Crosswalk LOS	C	C	B	B	B	B

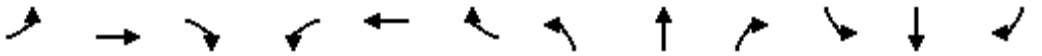
Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	948	1902	121	231	20	20
Effct. Green for Bike (s)	26.3	37.9	18.4	18.4	6.3	7.2
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	501	722	350	350	120	137
Bicycle Delay (s/bike)	29.6	21.6	36.0	35.8	46.4	45.5
Bicycle Compliance	Fair	Fair	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.84	2.22	2.86	2.31	2.62	2.20
Bicycle LOS	C	B	C	B	C	B



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	29	950	177	355	1512	110	111	305	51	29
v/c Ratio	0.34	0.71	0.27	0.85	0.59	0.53	0.53	0.50	0.24	0.10
Control Delay	56.0	29.3	9.3	59.4	20.5	47.1	47.1	6.3	36.7	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	29.3	9.3	59.4	20.5	47.1	47.1	6.3	36.7	0.6
Queue Length 50th (ft)	15	215	15	93	215	56	57	0	25	0
Queue Length 95th (ft)	#59	#491	82	#238	420	133	134	58	49	0
Internal Link Dist (ft)		217			575		1379		108	
Turn Bay Length (ft)	145		90	350		150				50
Base Capacity (vph)	86	1331	663	416	2554	612	615	616	647	651
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.71	0.27	0.85	0.59	0.18	0.18	0.50	0.08	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	855	159	309	1281	35	189	5	268	36	2	22
Future Volume (veh/h)	26	855	159	309	1281	35	189	5	268	36	2	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	950	177	355	1472	40	219	0	305	48	3	29
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.88	0.88	0.88	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	41	1229	537	403	2241	61	740	0	509	84	5	77
Arrive On Green	0.02	0.35	0.35	0.12	0.44	0.44	0.21	0.00	0.21	0.05	0.05	0.05
Sat Flow, veh/h	1781	3554	1552	3456	5105	139	3563	0	1562	1681	105	1550
Grp Volume(v), veh/h	29	950	177	355	982	530	219	0	305	51	0	29
Grp Sat Flow(s),veh/h/ln	1781	1777	1552	1728	1702	1839	1781	0	1562	1786	0	1550
Q Serve(g_s), s	1.4	20.5	7.2	8.7	19.5	19.5	4.4	0.0	14.1	2.4	0.0	1.6
Cycle Q Clear(g_c), s	1.4	20.5	7.2	8.7	19.5	19.5	4.4	0.0	14.1	2.4	0.0	1.6
Prop In Lane	1.00		1.00	1.00		0.08	1.00		1.00	0.94		1.00
Lane Grp Cap(c), veh/h	41	1229	537	403	1495	808	740	0	509	89	0	77
V/C Ratio(X)	0.70	0.77	0.33	0.88	0.66	0.66	0.30	0.00	0.60	0.57	0.00	0.37
Avail Cap(c_a), veh/h	83	1285	561	403	1495	808	1247	0	732	625	0	542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.6	25.0	20.7	37.3	19.0	19.0	28.7	0.0	24.3	39.8	0.0	39.4
Incr Delay (d2), s/veh	10.9	4.8	1.6	19.2	2.3	4.2	0.2	0.0	0.8	3.5	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	13.4	4.8	8.1	11.8	13.1	3.3	0.0	8.6	2.0	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	29.8	22.4	56.4	21.2	23.1	28.8	0.0	25.2	43.3	0.0	41.2
LnGrp LOS	D	C	C	E	C	C	C	A	C	D	A	D
Approach Vol, veh/h		1156			1867			524			80	
Approach Delay, s/veh		29.2			28.5			26.7			42.6	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	35.6		10.3	8.0	43.6		23.8				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	10.0	31.0		30.0	4.0	37.0		30.0				
Max Q Clear Time (g_c+I1), s	10.7	22.5		4.4	3.4	21.5		16.1				
Green Ext Time (p_c), s	0.0	7.2		0.3	0.0	14.1		1.6				

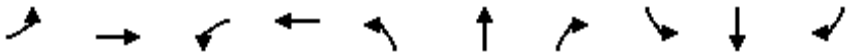
Intersection Summary			
HCM 6th Ctrl Delay		28.8	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	105.0	120.0	90.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	8	5	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	1	0	1	1
Ped. Right-Left Flow Rate (p/h)	0	0	1	2
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	40	25
Right Corner Area per Ped (sq.ft)	29978.3	29978.3	44967.5	22451.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	11702.5	0.0	5433.8	3401.6
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	52.0	52.0	52.0	52.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.24	3.28	2.64	2.00
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	10	15	4	3
Total Flow Rate (veh/h)	1156	1867	526	80
Effct. Green for Bike (s)	31.9	42.8	10.5	10.2
Cross Street Width (ft)	80.0	55.0	97.0	100.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	510	685	168	163
Bicycle Delay (s/bike)	34.8	27.2	52.5	52.8
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.24	2.14	2.63	1.94
Bicycle LOS	B	B	C	B

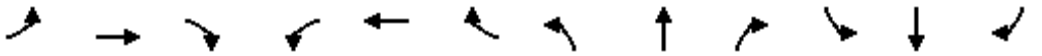


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	1414	224	1198	408	407	330	23	24	25
v/c Ratio	0.56	0.90	0.82	0.50	0.89	0.88	0.37	0.16	0.17	0.10
Control Delay	76.9	42.2	67.2	10.6	58.9	57.7	3.8	42.9	43.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.9	42.2	67.2	10.6	58.9	57.7	3.8	42.9	43.2	0.7
Queue Length 50th (ft)	25	316	131	74	262	261	6	14	15	0
Queue Length 95th (ft)	#74	#416	m185	137	#513	#511	50	29	30	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	70	1564	295	2393	459	462	906	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.90	0.76	0.50	0.89	0.88	0.36	0.09	0.09	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1201	156	215	1129	21	674	27	284	19	15	18
Future Volume (veh/h)	37	1201	156	215	1129	21	674	27	284	19	15	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	39	1251	162	224	1176	22	806	0	330	24	24	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.86	0.86	0.86	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	49	2048	265	251	2952	55	667	0	519	71	70	62
Arrive On Green	0.03	0.45	0.45	0.30	1.00	1.00	0.20	0.00	0.20	0.04	0.04	0.04
Sat Flow, veh/h	1781	4556	590	1668	5157	96	3337	0	1478	1781	1752	1549
Grp Volume(v), veh/h	39	935	478	224	776	422	806	0	330	24	24	25
Grp Sat Flow(s),veh/h/ln	1781	1702	1742	1668	1702	1849	1668	0	1478	1781	1752	1549
Q Serve(g_s), s	2.2	20.8	20.8	12.8	0.0	0.0	20.0	0.0	18.7	1.3	1.3	1.6
Cycle Q Clear(g_c), s	2.2	20.8	20.8	12.8	0.0	0.0	20.0	0.0	18.7	1.3	1.3	1.6
Prop In Lane	1.00		0.34	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	1530	783	251	1949	1059	667	0	519	71	70	62
V/C Ratio(X)	0.79	0.61	0.61	0.89	0.40	0.40	1.21	0.00	0.64	0.34	0.34	0.40
Avail Cap(c_a), veh/h	71	1530	783	300	1949	1059	667	0	519	285	280	248
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.44	0.44	0.44	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	20.9	20.9	34.2	0.0	0.0	40.0	0.0	27.2	46.7	46.7	46.8
Incr Delay (d2), s/veh	25.2	1.4	2.8	12.5	0.3	0.5	107.2	0.0	2.6	2.8	2.9	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.3	12.3	12.9	7.6	0.1	0.3	27.4	0.0	11.1	1.1	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	22.3	23.7	46.7	0.3	0.5	147.2	0.0	29.7	49.5	49.6	51.0
LnGrp LOS	E	C	C	D	A	A	F	A	C	D	D	D
Approach Vol, veh/h		1452			1422			1136			73	
Approach Delay, s/veh		24.2			7.6			113.1			50.0	
Approach LOS		C			A			F			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.0	49.0		8.0	6.8	61.2		24.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	18.0	30.0		16.0	4.0	44.0		20.0				
Max Q Clear Time (g_c+I1), s	14.8	22.8		3.6	4.2	2.0		22.0				
Green Ext Time (p_c), s	0.2	4.9		0.2	0.0	10.6		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		43.6	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	88.4	95.5	49.4	54.8
Crosswalk Width (ft)	10.0	10.0	10.0	10.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	11.0	11.0	10.0	15.0
Right Corner Size B (ft)	10.0	11.0	11.0	14.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	110.00	121.00	110.00	210.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	0
Ped. Right-Left Flow Rate (p/h)	1	0	3	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	3
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	12355.6	0.0	19768.9	31482.7
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	3316.1	0.0	1593.1	0.0
Crosswalk Circulation Code	A	-	A	-
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.16	3.10	2.87	2.19
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	8	9	1	5
Total Flow Rate (veh/h)	1452	1422	1145	72
Effct. Green for Bike (s)	31.4	47.2	29.5	8.4
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	628	944	590	168
Bicycle Delay (s/bike)	23.6	14.0	24.9	42.1
Bicycle Compliance	Fair	Fair	Fair	Poor
Bicycle LOS Score	2.07	2.05	3.78	2.99
Bicycle LOS	B	B	D	C

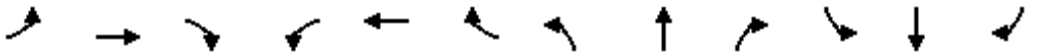
Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	659	952	1533	212	147
v/c Ratio	1.29	0.37	0.86	0.64	0.38
Control Delay	170.8	9.1	28.7	44.4	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	170.8	9.1	28.7	44.4	10.4
Queue Length 50th (ft)	~262	120	403	128	13
Queue Length 95th (ft)	m#326	m167	#753	166	53
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	509	2544	1777	557	573
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.29	0.37	0.86	0.38	0.26

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	613	885	0	0	1182	228	201	0	140	0	0	0
Future Volume (veh/h)	613	885	0	0	1182	228	201	0	140	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	659	952	0	0	1285	248	212	0	147			
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.95	0.95	0.95			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1093	2693	0	0	1127	215	271	0	237			
Arrive On Green	0.68	1.00	0.00	0.00	0.38	0.38	0.16	0.00	0.16			
Sat Flow, veh/h	3237	3647	0	0	3060	566	1668	0	1462			
Grp Volume(v), veh/h	659	952	0	0	763	770	212	0	147			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1755	1668	0	1462			
Q Serve(g_s), s	11.1	0.0	0.0	0.0	38.0	38.0	12.2	0.0	9.4			
Cycle Q Clear(g_c), s	11.1	0.0	0.0	0.0	38.0	38.0	12.2	0.0	9.4			
Prop In Lane	1.00		0.00	0.00		0.32	1.00		1.00			
Lane Grp Cap(c), veh/h	1093	2693	0	0	675	667	271	0	237			
V/C Ratio(X)	0.60	0.35	0.00	0.00	1.13	1.15	0.78	0.00	0.62			
Avail Cap(c_a), veh/h	1093	2693	0	0	675	667	567	0	497			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.51	0.51	0.00	0.00	0.75	0.75	1.00	0.00	1.00			
Uniform Delay (d), s/veh	12.5	0.0	0.0	0.0	31.0	31.0	40.2	0.0	39.0			
Incr Delay (d2), s/veh	0.5	0.2	0.0	0.0	72.7	82.1	4.9	0.0	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	4.8	0.1	0.0	0.0	39.9	42.2	9.1	0.0	6.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	0.2	0.0	0.0	103.7	113.1	45.1	0.0	41.7			
LnGrp LOS	B	A	A	A	F	F	D	A	D			
Approach Vol, veh/h		1611			1533			359				
Approach Delay, s/veh		5.4			108.4			43.7				
Approach LOS		A			F			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		79.8			37.8	42.0		20.2				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			16.0	38.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			13.1	40.0		14.2				
Green Ext Time (p_c), s		8.8			1.0	0.0		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			54.4									
HCM 6th LOS			D									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	73.5	41.5	30.4
Crosswalk Width (ft)	10.0	11.0	10.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	8.0	9.0	19.0	0.1
Right Corner Size B (ft)	9.0	10.0	19.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	72.00	90.00	361.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	2	0
Ped. Right-Left Flow Rate (p/h)	0	1	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21565.5	40474.1	81212.1	-53.5
Right Corner Quality of Service	A	A	A	F
Ped. Circulation Area (sq.ft)	0.0	7459.0	2974.4	0.3
Crosswalk Circulation Code	-	A	A	F
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.06	2.91	2.01	2.17
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	11	1	1
Total Flow Rate (veh/h)	1611	1533	359	0
Effct. Green for Bike (s)	71.9	51.9	20.1	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1438	1038	402	0
Bicycle Delay (s/bike)	4.0	11.6	31.9	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.44	2.30	2.32	0.00
Bicycle LOS	B	B	B	

Intersection	
Intersection Delay, s/veh	3.5
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	2
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	115	126	137
Demand Flow Rate, veh/h	117	129	139
Vehicles Circulating, veh/h	16	110	30
Vehicles Exiting, veh/h	153	23	209
Ped Vol Crossing Leg, #/h	5	0	0
Ped Cap Adj	0.999	1.000	1.000
Approach Delay, s/veh	3.4	3.8	3.3
Approach LOS	A	A	A

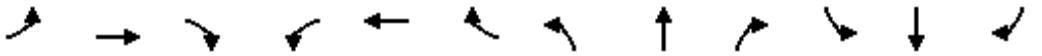
Lane	Left	Left	Left	Right
Designated Moves	LT	TR	L	TR
Assumed Moves	LT	TR	L	TR
RT Channelized				
Lane Util	1.000	1.000	0.115	0.885
Follow-Up Headway, s	2.609	2.609	2.535	2.535
Critical Headway, s	4.976	4.976	4.544	4.544
Entry Flow, veh/h	117	129	16	123
Cap Entry Lane, veh/h	1358	1233	1382	1382
Entry HV Adj Factor	0.982	0.980	1.000	0.984
Flow Entry, veh/h	115	126	16	121
Cap Entry, veh/h	1332	1209	1382	1359
V/C Ratio	0.086	0.105	0.012	0.089
Control Delay, s/veh	3.4	3.8	2.7	3.4
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Lane Group	EBT	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	4	251	137	346	625	430	678
v/c Ratio	0.01	0.61	0.09	0.62	0.69	1.16	0.63
Control Delay	0.0	34.4	0.1	28.5	6.7	131.2	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	34.4	0.1	28.5	6.7	131.2	15.0
Queue Length 50th (ft)	0	98	0	126	0	~225	168
Queue Length 95th (ft)	0	206	0	239	31	#591	423
Internal Link Dist (ft)	160	615		469			438
Turn Bay Length (ft)			180		370	490	
Base Capacity (vph)	740	840	1583	1400	1311	370	1631
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.30	0.09	0.25	0.48	1.16	0.42

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	204	2	112	0	277	500	370	582	1
Future Volume (veh/h)	0	0	1	204	2	112	0	277	500	370	582	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	4	249	2	0	0	346	0	430	677	1
Peak Hour Factor	0.25	0.25	0.25	0.82	0.82	0.82	0.80	0.80	0.80	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	7	325	3		3	441		416	1021	2
Arrive On Green	0.00	0.00	0.00	0.18	0.18	0.00	0.00	0.24	0.00	0.23	0.55	0.55
Sat Flow, veh/h	0	0	1585	1768	14	1585	1781	1870	1585	1781	1867	3
Grp Volume(v), veh/h	0	0	4	251	0	0	0	346	0	430	0	678
Grp Sat Flow(s),veh/h/ln	0	0	1585	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.2	8.6	0.0	0.0	0.0	11.1	0.0	15.0	0.0	16.5
Cycle Q Clear(g_c), s	0.0	0.0	0.2	8.6	0.0	0.0	0.0	11.1	0.0	15.0	0.0	16.5
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	7	328	0		3	441		416	0	1023
V/C Ratio(X)	0.00	0.00	0.59	0.77	0.00		0.00	0.79		1.03	0.00	0.66
Avail Cap(c_a), veh/h	0	0	667	944	0		111	1573		416	0	1573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	31.9	24.9	0.0	0.0	0.0	23.0	0.0	24.6	0.0	10.3
Incr Delay (d2), s/veh	0.0	0.0	61.4	3.8	0.0	0.0	0.0	3.1	0.0	52.9	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.3	6.4	0.0	0.0	0.0	8.1	0.0	17.3	0.0	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	93.3	28.7	0.0	0.0	0.0	26.1	0.0	77.5	0.0	11.1
LnGrp LOS	A	A	F	C	A		A	C		F	A	B
Approach Vol, veh/h		4			251	A		346	A		1108	
Approach Delay, s/veh		93.3			28.7			26.1			36.9	
Approach LOS		F			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	21.1		5.3	0.0	41.1		17.8				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	54.0		27.0	4.0	54.0		34.0				
Max Q Clear Time (g_c+I1), s	17.0	13.1		2.2	0.0	18.5		10.6				
Green Ext Time (p_c), s	0.0	2.0		0.0	0.0	4.7		1.3				

Intersection Summary			
HCM 6th Ctrl Delay		33.6	
HCM 6th LOS		C	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	76.0	67.3	67.3	76.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.50	2.76	2.83
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	14	8
Total Flow Rate (veh/h)	4	388	971	1108
Effct. Green for Bike (s)	5.8	17.5	22.7	43.6
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	76	230	299	574
Bicycle Delay (s/bike)	70.3	59.6	55.4	38.8
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.71	3.35	2.95	2.74
Bicycle LOS	C	C	C	C

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	157	54	575	975	7
Future Vol, veh/h	20	157	54	575	975	7
Conflicting Peds, #/hr	1	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	80	80	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	176	68	719	1108	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1611	560	1118	0	-	0
Stage 1	1114	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	95	472	620	-	-	-
Stage 1	276	-	-	-	-	-
Stage 2	577	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	84	471	619	-	-	-
Mov Cap-2 Maneuver	84	-	-	-	-	-
Stage 1	245	-	-	-	-	-
Stage 2	576	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.3	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	619	-	84	471	-	-
HCM Lane V/C Ratio	0.109	-	0.268	0.375	-	-
HCM Control Delay (s)	11.5	-	62.8	17.1	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.4	-	1	1.7	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	158805.9	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	1550	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.94	
Delay for adq Gap	158808.20	
Avg Ped Delay (s)	158805.89	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	273.0	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	975	575
Ped Vol Crossed	1	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.99	0.84
Prob of Blocked Lane	0.88	0.60
Delay for adq Gap	254.59	26.01
Avg Ped Delay (s)	251.12	21.91

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	575	196	734	446	91	1138
v/c Ratio	0.53	0.33	0.50	0.52	0.25	0.60
Control Delay	25.0	5.4	20.6	4.4	11.5	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	5.4	20.6	4.4	11.5	14.5
Queue Length 50th (ft)	130	0	159	0	23	208
Queue Length 95th (ft)	87	0	161	9	45	268
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1346	684	1715	929	461	2424
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.29	0.43	0.48	0.20	0.47

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	276	94	521	317	84	1047
Future Volume (veh/h)	276	94	521	317	84	1047
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.94	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	575	196	734	446	91	1138
Peak Hour Factor	0.48	0.48	0.71	0.71	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	821	377	1598	667	345	2105
Arrive On Green	0.24	0.24	0.45	0.45	0.05	0.59
Sat Flow, veh/h	3456	1585	3647	1483	1781	3647
Grp Volume(v), veh/h	575	196	734	446	91	1138
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1483	1781	1777
Q Serve(g_s), s	9.8	7.0	9.3	15.3	1.6	12.4
Cycle Q Clear(g_c), s	9.8	7.0	9.3	15.3	1.6	12.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	821	377	1598	667	345	2105
V/C Ratio(X)	0.70	0.52	0.46	0.67	0.26	0.54
Avail Cap(c_a), veh/h	1443	662	1923	803	587	2693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.5	21.4	12.3	14.0	8.7	7.9
Incr Delay (d2), s/veh	1.1	1.1	0.5	2.9	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.1	10.4	6.0	8.7	0.9	5.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.6	22.6	12.8	16.9	8.9	8.3
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	771		1180			1229
Approach Delay, s/veh	23.4		14.4			8.4
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		44.3		20.4	9.2	35.1
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		49.0		27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		14.4		11.8	3.6	17.3
Green Ext Time (p_c), s		17.1		3.5	0.1	11.8

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	65.0	80.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None	Actuated
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	8.0	0.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	7.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	26	0	4
Ped. Right-Left Flow Rate (p/h)	3	0	81
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	5170.9	20296.0	6893.9
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	434.9	0.0	151.4
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	37.9	45.5	37.9
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.40	2.87	2.93
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	17	6
Total Flow Rate (veh/h)	771	1180	1229
Effct. Green for Bike (s)	24.7	32.3	41.8
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	543	710	919
Bicycle Delay (s/bike)	24.2	19.1	13.3
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	3.27	2.01	1.55
Bicycle LOS	C	B	B

Intersection	
Int Delay, s/veh	6.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	51	789	86	95	1249
Future Vol, veh/h	27	51	789	86	95	1249
Conflicting Peds, #/hr	0	0	0	22	22	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	69	69	71	71	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	74	1111	121	113	1487

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2164	638	0	0	1254	0
Stage 1	1194	-	-	-	-	-
Stage 2	970	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	55	359	-	-	295	-
Stage 1	188	-	-	-	-	-
Stage 2	320	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 33	351	-	-	289	-
Mov Cap-2 Maneuver	~ 33	-	-	-	-	-
Stage 1	184	-	-	-	-	-
Stage 2	195	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	150.5	0	1.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	33	351	289	-
HCM Lane V/C Ratio	-	-	1.186	0.211	0.391	-
HCM Control Delay (s)	-	-	$ 400.8	18	25.2	-
HCM Lane LOS	-	-	F	C	D	-
HCM 95th %tile Q(veh)	-	-	4.2	0.8	1.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	1319.1	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	789	1249
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	0.98	1.00
Prob of Blocked Lane	0.72	0.95
Delay for adq Gap	183.93	1142.21
Avg Ped Delay (s)	179.77	1139.37

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	20265682.0
Level of Service	F

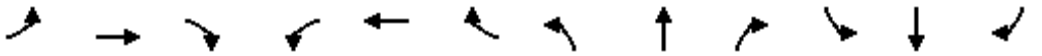
Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2038
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.96
Delay for adq Gap	20265684.00
Avg Ped Delay (s)	20265682.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	60	130	155	10	59	1091	17	1498	24
v/c Ratio	0.16	0.24	0.42	0.02	0.20	0.39	0.05	1.08	0.04
Control Delay	20.3	2.8	25.0	0.0	10.9	12.7	10.4	76.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	2.8	25.0	0.0	10.9	12.7	10.4	76.7	0.1
Queue Length 50th (ft)	21	0	58	0	14	123	4	~516	0
Queue Length 95th (ft)	45	15	68	0	28	171	12	#586	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	466	634	456	622	538	2846	425	1383	685
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.21	0.34	0.02	0.11	0.38	0.04	1.08	0.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	14	108	78	15	6	47	836	26	14	1243	20
Future Volume (veh/h)	36	14	108	78	15	6	47	836	26	14	1243	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.94	0.98		0.95	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	17	130	130	25	10	59	1058	33	17	1498	24
Peak Hour Factor	0.83	0.83	0.83	0.60	0.60	0.60	0.79	0.79	0.79	0.83	0.83	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	90	21	431	96	10	438	208	2368	74	294	1494	638
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.06	0.47	0.47	0.01	0.42	0.42
Sat Flow, veh/h	0	74	1488	0	36	1511	1781	5081	158	1781	3554	1518
Grp Volume(v), veh/h	60	0	130	155	0	10	59	709	382	17	1498	24
Grp Sat Flow(s),veh/h/ln	74	0	1488	36	0	1511	1781	1702	1835	1781	1777	1518
Q Serve(g_s), s	0.0	0.0	4.7	0.0	0.0	0.3	1.2	9.7	9.7	0.4	29.0	0.6
Cycle Q Clear(g_c), s	20.0	0.0	4.7	20.0	0.0	0.3	1.2	9.7	9.7	0.4	29.0	0.6
Prop In Lane	0.72		1.00	0.84		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	431	106	0	438	208	1587	855	294	1494	638
V/C Ratio(X)	0.54	0.00	0.30	1.46	0.00	0.02	0.28	0.45	0.45	0.06	1.00	0.04
Avail Cap(c_a), veh/h	111	0	431	106	0	438	621	1587	855	530	1494	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	19.1	32.6	0.0	17.5	15.8	12.4	12.4	11.5	20.0	11.8
Incr Delay (d2), s/veh	6.6	0.0	0.5	250.2	0.0	0.0	1.6	0.4	0.7	0.1	24.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	0.0	2.9	16.5	0.0	0.2	0.9	5.5	6.1	0.2	21.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	19.6	282.7	0.0	17.5	17.4	12.8	13.1	11.6	44.0	11.8
LnGrp LOS	C	A	B	F	A	B	B	B	B	B	F	B
Approach Vol, veh/h		190			165			1150			1539	
Approach Delay, s/veh		24.2			266.7			13.1			43.1	
Approach LOS		C			F			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	35.0		25.0	5.8	38.2		25.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	29.0		20.0	10.0	29.0		20.0				
Max Q Clear Time (g_c+I1), s	3.2	31.0		22.0	2.4	11.7		22.0				
Green Ext Time (p_c), s	0.3	0.0		0.0	0.0	9.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		42.7	
HCM 6th LOS		D	

Notes

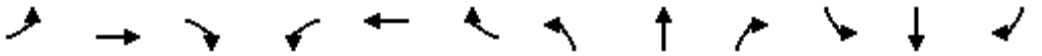
User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	4	12	0	8
Ped. Right-Left Flow Rate (p/h)	4	2	0	37
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73706.7	9989.4	42095.1	11094.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2301.5	1312.9	0.0	278.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	2.00	3.17	3.15
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	190	165	1150	1539
Effct. Green for Bike (s)	20.9	20.9	41.7	29.6
Cross Street Width (ft)	84.5	96.0	36.1	37.9
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	492	492	981	696
Bicycle Delay (s/bike)	24.2	24.2	11.0	18.1
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.17	3.30	2.74	2.34
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	136	224	200	192	183	61	578	224	572	1036
v/c Ratio	0.47	0.75	0.34	0.61	0.46	0.50	0.50	0.31	0.63	0.66
Control Delay	49.1	58.7	43.5	42.2	10.4	67.7	39.1	6.2	40.4	27.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	58.7	43.5	42.2	10.4	67.7	39.1	6.2	40.4	27.9
Queue Length 50th (ft)	95	155	68	105	0	45	142	18	189	321
Queue Length 95th (ft)	133	200	101	175	50	91	174	59	280	432
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	404	416	686	355	436	151	1501	740	1005	1702
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.54	0.29	0.54	0.42	0.40	0.39	0.30	0.57	0.61

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	130	42	166	66	245	53	503	195	515	878	54
Future Volume (veh/h)	105	130	42	166	66	245	53	503	195	515	878	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.97	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	136	169	55	200	241	188	61	578	224	572	976	60
Peak Hour Factor	0.77	0.77	0.77	0.83	0.83	0.83	0.87	0.87	0.87	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	296	222	72	629	330	271	79	1191	637	841	1466	90
Arrive On Green	0.17	0.17	0.17	0.18	0.18	0.18	0.04	0.23	0.23	0.24	0.43	0.43
Sat Flow, veh/h	1781	1335	434	3563	1870	1532	1781	5106	1530	3456	3390	208
Grp Volume(v), veh/h	136	0	224	200	241	188	61	578	224	572	512	524
Grp Sat Flow(s),veh/h/ln	1781	0	1770	1781	1870	1532	1781	1702	1530	1728	1777	1821
Q Serve(g_s), s	6.9	0.0	12.0	4.9	12.1	11.5	3.4	9.8	10.1	15.0	22.9	22.9
Cycle Q Clear(g_c), s	6.9	0.0	12.0	4.9	12.1	11.5	3.4	9.8	10.1	15.0	22.9	22.9
Prop In Lane	1.00		0.25	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	296	0	294	629	330	271	79	1191	637	841	769	788
V/C Ratio(X)	0.46	0.00	0.76	0.32	0.73	0.69	0.78	0.49	0.35	0.68	0.67	0.67
Avail Cap(c_a), veh/h	429	0	426	751	394	323	161	1589	756	1006	909	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.5	0.0	39.7	35.8	38.8	38.5	47.1	33.0	20.3	34.2	22.5	22.5
Incr Delay (d2), s/veh	0.8	0.0	3.9	1.0	11.2	11.5	6.0	1.4	1.5	3.6	4.5	4.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.5	0.0	9.3	3.8	10.5	8.6	2.8	7.2	8.5	10.5	14.8	15.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	0.0	43.5	36.8	50.0	49.9	53.1	34.4	21.8	37.8	27.1	27.0
LnGrp LOS	D	A	D	D	D	D	D	C	C	D	C	C
Approach Vol, veh/h		360			629			863			1608	
Approach Delay, s/veh		41.6			45.8			32.5			30.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		21.5	8.4	47.1		22.6	28.2	27.3				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	9.0	51.0		21.0	29.0	31.0				
Max Q Clear Time (g_c+I1), s		14.0	5.4	24.9		14.1	17.0	12.1				
Green Ext Time (p_c), s		1.1	0.0	18.2		3.5	4.8	11.2				

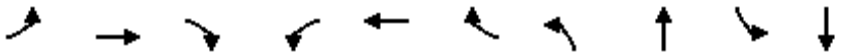
Intersection Summary												
HCM 6th Ctrl Delay			35.1									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

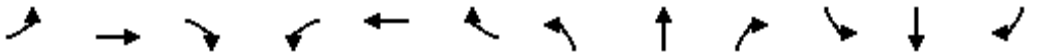
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	2
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	7	3	5
Ped. Right-Left Flow Rate (p/h)	3	9	2	7
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53583.8	21032.3	2458.1	32730.7
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1647.1	593.9	1233.7	586.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	51.0	51.0	53.8	53.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.15	3.01	3.05	3.42
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	5	12	6
Total Flow Rate (veh/h)	360	575	863	1608
Effct. Green for Bike (s)	17.6	18.7	24.9	48.5
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	286	304	405	789
Bicycle Delay (s/bike)	45.3	44.3	39.4	22.6
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.42	3.70	1.74	2.93
Bicycle LOS	C	D	B	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	111	27	110	171	24	94	263	840	46	1074
v/c Ratio	0.34	0.13	0.30	0.43	0.08	0.24	0.55	0.32	0.28	0.56
Control Delay	44.7	37.8	2.2	42.7	34.5	1.4	42.2	14.1	51.5	23.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	37.8	2.2	42.7	34.5	1.4	42.2	14.1	51.5	23.8
Queue Length 50th (ft)	28	14	0	44	12	0	67	89	12	148
Queue Length 95th (ft)	65	36	0	67	24	0	132	179	38	310
Internal Link Dist (ft)		461			455			697		1255
Turn Bay Length (ft)	240		240	300		200	300		200	
Base Capacity (vph)	408	281	413	1387	752	723	693	3053	163	2261
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.10	0.27	0.12	0.03	0.13	0.38	0.28	0.28	0.48

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	22	89	106	15	58	221	660	45	44	902	119
Future Volume (veh/h)	90	22	89	106	15	58	221	660	45	44	902	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	27	110	171	24	94	263	786	54	46	949	125
Peak Hour Factor	0.81	0.81	0.81	0.62	0.62	0.62	0.84	0.84	0.84	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	251	208	295	297	247	380	2251	154	115	1753	230
Arrive On Green	0.06	0.13	0.13	0.09	0.16	0.16	0.11	0.46	0.46	0.03	0.39	0.39
Sat Flow, veh/h	3456	1870	1550	3456	1870	1555	3456	4874	333	3456	4553	598
Grp Volume(v), veh/h	111	27	110	171	24	94	263	548	292	46	709	365
Grp Sat Flow(s),veh/h/ln	1728	1870	1550	1728	1870	1555	1728	1702	1803	1728	1702	1747
Q Serve(g_s), s	2.3	0.9	4.9	3.5	0.8	4.0	5.4	7.6	7.7	1.0	11.9	12.0
Cycle Q Clear(g_c), s	2.3	0.9	4.9	3.5	0.8	4.0	5.4	7.6	7.7	1.0	11.9	12.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.34
Lane Grp Cap(c), veh/h	210	251	208	295	297	247	380	1572	833	115	1311	673
V/C Ratio(X)	0.53	0.11	0.53	0.58	0.08	0.38	0.69	0.35	0.35	0.40	0.54	0.54
Avail Cap(c_a), veh/h	470	254	211	1597	865	719	799	2360	1250	188	1759	903
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	28.0	29.7	32.4	26.4	27.7	31.5	12.7	12.7	34.8	17.6	17.6
Incr Delay (d2), s/veh	2.1	0.2	2.4	1.8	0.1	1.0	2.3	0.4	0.7	2.3	1.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.8	3.5	2.7	0.7	2.7	4.0	4.5	5.0	0.7	7.6	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.6	28.2	32.1	34.2	26.5	28.7	33.8	13.1	13.4	37.1	18.6	19.6
LnGrp LOS	D	C	C	C	C	C	C	B	B	D	B	B
Approach Vol, veh/h		248			289			1103			1120	
Approach Delay, s/veh		33.2			31.7			18.1			19.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	34.3	11.3	14.9	7.4	40.0	9.5	16.7
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	17.0	38.0	34.0	10.0	4.0	51.0	10.0	34.0
Max Q Clear Time (g_c+I1), s	7.4	14.0	5.5	6.9	3.0	9.7	4.3	6.0
Green Ext Time (p_c), s	0.7	14.4	0.8	0.1	0.0	14.4	0.2	0.5

Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

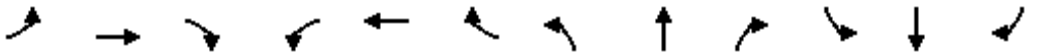
User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	100.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	6	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	30.0	30.0	30.0	30.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	6	3	1	6
Ped. Right-Left Flow Rate (p/h)	1	1	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73709.5	42097.6	117924.5	34657.2
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1035.5	2540.5	0.1	980.9
Crosswalk Circulation Code	A	A	F	A
Pedestrian Delay (s/p)	51.3	51.3	60.0	51.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.64	2.56	3.17	3.14
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	1	0	4
Total Flow Rate (veh/h)	248	289	1103	1120
Effct. Green for Bike (s)	10.0	14.8	45.8	33.3
Cross Street Width (ft)	100.0	99.0	68.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	167	247	763	555
Bicycle Delay (s/bike)	50.4	46.1	22.9	31.4
Bicycle Compliance	Poor	Poor	Fair	Poor
Bicycle LOS Score	3.50	2.26	1.92	1.81
Bicycle LOS	C	B	B	B

Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	45	87	40	39	71	1227	37	1147	37
v/c Ratio	0.22	0.25	0.18	0.11	0.24	0.54	0.16	0.51	0.04
Control Delay	26.6	4.3	26.1	0.6	29.4	8.6	28.2	8.7	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	4.3	26.1	0.6	29.4	8.6	28.2	8.7	0.8
Queue Length 50th (ft)	12	0	11	0	10	81	10	127	0
Queue Length 95th (ft)	46	18	32	0	34	200	42	194	4
Internal Link Dist (ft)				233		1200		376	
Turn Bay Length (ft)	100	100			150		100		100
Base Capacity (vph)	1006	1202	1038	1199	300	2750	230	2866	1295
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.07	0.04	0.03	0.24	0.45	0.16	0.40	0.03

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	0	80	28	0	27	65	910	96	35	1078	34
Future Volume (veh/h)	41	0	80	28	0	27	65	910	96	35	1078	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	0	87	40	0	39	71	1110	117	37	1147	37
Peak Hour Factor	0.92	0.92	0.92	0.70	0.92	0.70	0.92	0.82	0.82	0.94	0.94	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	222	188	308	0	188	177	1668	176	87	1825	806
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.05	0.52	0.52	0.05	0.51	0.51
Sat Flow, veh/h	1368	1870	1585	1310	0	1585	3456	3233	340	1781	3554	1570
Grp Volume(v), veh/h	45	0	87	40	0	39	71	609	618	37	1147	37
Grp Sat Flow(s),veh/h/ln	1368	1870	1585	1310	0	1585	1728	1777	1796	1781	1777	1570
Q Serve(g_s), s	1.5	0.0	2.4	1.3	0.0	1.1	0.9	12.0	12.0	1.0	11.0	0.6
Cycle Q Clear(g_c), s	2.5	0.0	2.4	1.3	0.0	1.1	0.9	12.0	12.0	1.0	11.0	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	284	222	188	308	0	188	177	917	927	87	1825	806
V/C Ratio(X)	0.16	0.00	0.46	0.13	0.00	0.21	0.40	0.66	0.67	0.43	0.63	0.05
Avail Cap(c_a), veh/h	1135	1385	1174	1120	0	1171	299	1459	1474	229	3067	1355
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	19.5	19.0	0.0	18.9	21.8	8.5	8.5	21.9	8.3	5.7
Incr Delay (d2), s/veh	0.3	0.0	1.8	0.2	0.0	0.5	1.5	0.8	0.8	3.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	0.0	1.6	0.7	0.0	0.7	0.6	5.1	5.2	0.8	4.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	0.0	21.2	19.2	0.0	19.4	23.2	9.3	9.3	25.2	8.6	5.8
LnGrp LOS	C	A	C	B	A	B	C	A	A	C	A	A
Approach Vol, veh/h		132			79			1298			1221	
Approach Delay, s/veh		20.9			19.3			10.1			9.1	
Approach LOS		C			B			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	30.2		10.3	6.9	30.1		10.3				
Change Period (Y+Rc), s	4.5	5.8		* 4.7	4.5	5.8		* 4.7				
Max Green Setting (Gmax), s	6.1	38.9		* 35	4.1	40.9		* 35				
Max Q Clear Time (g_c+I1), s	3.0	14.0		4.5	2.9	13.0		3.3				
Green Ext Time (p_c), s	0.0	8.8		0.5	0.0	9.3		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		10.4	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

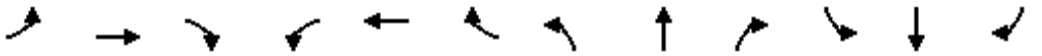
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.2	36.0	72.9	83.6
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	47.5	47.5	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.20	2.02	3.09	3.05
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	132	79	1298	1221
Effct. Green for Bike (s)	7.7	7.8	33.3	32.2
Cross Street Width (ft)	72.9	83.6	36.0	50.2
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	162	164	701	678
Bicycle Delay (s/bike)	40.1	40.0	20.0	20.8
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.89	2.97	3.18	3.33
Bicycle LOS	C	C	C	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	9	92	68	69	53	1308	72	38	1043	35
v/c Ratio	0.23	0.04	0.33	0.38	0.27	0.13	0.52	0.06	0.12	0.42	0.03
Control Delay	36.0	29.7	9.4	40.6	12.2	2.8	7.3	1.0	6.1	10.7	0.2
Queue Delay	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.1	0.0
Total Delay	36.0	29.7	9.5	40.7	12.2	2.8	7.6	1.0	6.1	10.8	0.2
Queue Length 50th (ft)	23	5	0	40	5	2	38	0	3	124	0
Queue Length 95th (ft)	28	10	13	53	25	m7	453	m11	24	340	2
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	446	627	594	471	578	467	2535	1131	380	2474	1113
Starvation Cap Reductn	0	0	0	0	0	0	493	0	0	0	0
Spillback Cap Reductn	0	0	122	94	0	0	0	0	0	371	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.01	0.19	0.18	0.12	0.11	0.64	0.06	0.10	0.50	0.03

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	6	61	54	6	49	44	1086	60	37	1012	34
Future Volume (veh/h)	26	6	61	54	6	49	44	1086	60	37	1012	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	9	0	68	8	61	53	1308	72	38	1043	35
Peak Hour Factor	0.66	0.66	0.66	0.80	0.80	0.80	0.83	0.83	0.83	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	179		204	18	136	445	2497	1090	409	2475	1088
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.10	0.08	1.00	1.00	0.03	0.70	0.70
Sat Flow, veh/h	1329	1870	1585	1402	187	1422	1781	3554	1551	1781	3554	1562
Grp Volume(v), veh/h	39	9	0	68	0	69	53	1308	72	38	1043	35
Grp Sat Flow(s),veh/h/ln	1329	1870	1585	1402	0	1609	1781	1777	1551	1781	1777	1562
Q Serve(g_s), s	2.7	0.4	0.0	4.4	0.0	3.8	0.8	0.0	0.0	0.6	12.0	0.7
Cycle Q Clear(g_c), s	6.6	0.4	0.0	4.8	0.0	3.8	0.8	0.0	0.0	0.6	12.0	0.7
Prop In Lane	1.00		1.00	1.00		0.88	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	149	179		204	0	154	445	2497	1090	409	2475	1088
V/C Ratio(X)	0.26	0.05		0.33	0.00	0.45	0.12	0.52	0.07	0.09	0.42	0.03
Avail Cap(c_a), veh/h	470	630		542	0	542	543	2497	1090	518	2475	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.75	0.75	0.75	0.87	0.87	0.87
Uniform Delay (d), s/veh	43.7	39.0	0.0	41.2	0.0	40.6	4.1	0.0	0.0	3.5	6.2	4.5
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.4	0.0	0.8	0.0	0.6	0.1	0.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.3	0.0	2.8	0.0	2.8	0.3	0.4	0.0	0.3	6.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.0	39.1	0.0	41.6	0.0	41.3	4.1	0.6	0.1	3.6	6.7	4.5
LnGrp LOS	D	D		D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		48	A		137			1433			1116	
Approach Delay, s/veh		43.1			41.5			0.7			6.5	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.8	72.2		14.1	8.2	72.8		14.1				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	9.0	38.0		32.0	9.0	38.0		32.0				
Max Q Clear Time (g_c+I1), s	2.8	14.0		6.8	2.6	2.0		8.6				
Green Ext Time (p_c), s	0.0	16.8		0.2	0.0	27.9		0.0				

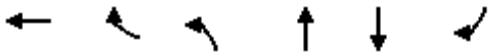
Intersection Summary			
HCM 6th Ctrl Delay		5.8	
HCM 6th LOS		A	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	12600.0	0.0	589765.2
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	10980.0
Crosswalk Circulation Code	-	-	-	A
Pedestrian Delay (s/p)	39.8	39.8	39.8	39.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.49	2.10	3.22	3.09
Pedestrian Crosswalk LOS	B	B	C	C

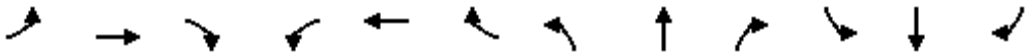
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	4
Total Flow Rate (veh/h)	140	137	1433	1116
Effct. Green for Bike (s)	12.0	12.0	68.1	66.4
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	253	253	1434	1398
Bicycle Delay (s/bike)	36.3	36.3	3.8	4.3
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.11	3.16	1.78	1.99
Bicycle LOS	C	C	B	B



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	533	309	51	1167	927	418
v/c Ratio	0.82	0.50	0.41	0.64	0.63	0.56
Control Delay	36.6	18.4	55.5	11.9	24.7	10.2
Queue Delay	0.0	0.0	0.0	0.5	0.6	0.5
Total Delay	36.6	18.5	55.5	12.3	25.3	10.7
Queue Length 50th (ft)	275	102	27	182	253	41
Queue Length 95th (ft)	318	138	m49	250	226	118
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	762	716	129	1811	1463	753
Starvation Cap Reductn	0	0	0	0	219	88
Spillback Cap Reductn	0	4	0	253	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.43	0.40	0.75	0.75	0.63

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



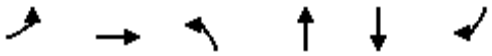
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	429	8	253	43	980	0	0	834	376
Future Volume (veh/h)	0	0	0	429	8	253	43	980	0	0	834	376
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				523	10	309	51	1167	0	0	927	418
Peak Hour Factor				0.82	0.82	0.82	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				600	11	543	64	1916	0	0	1631	664
Arrive On Green				0.37	0.37	0.37	0.03	0.36	0.00	0.00	0.92	0.92
Sat Flow, veh/h				1639	31	1485	1668	3647	0	0	3647	1446
Grp Volume(v), veh/h				533	0	309	51	1167	0	0	927	418
Grp Sat Flow(s),veh/h/ln				1670	0	1485	1668	1777	0	0	1777	1446
Q Serve(g_s), s				28.2	0.0	15.8	2.9	25.5	0.0	0.0	4.2	5.3
Cycle Q Clear(g_c), s				28.2	0.0	15.8	2.9	25.5	0.0	0.0	4.2	5.3
Prop In Lane				0.98		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				611	0	543	64	1916	0	0	1631	664
V/C Ratio(X)				0.87	0.00	0.57	0.80	0.61	0.00	0.00	0.57	0.63
Avail Cap(c_a), veh/h				773	0	688	123	1916	0	0	1631	664
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh				28.0	0.0	24.1	45.9	22.1	0.0	0.0	2.3	2.3
Incr Delay (d2), s/veh				8.9	0.0	0.9	16.9	1.2	0.0	0.0	1.3	4.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				18.1	0.0	9.4	2.6	16.1	0.0	0.0	1.9	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.0	0.0	25.1	62.8	23.3	0.0	0.0	3.6	6.5
LnGrp LOS				D	A	C	E	C	A	A	A	A
Approach Vol, veh/h					842			1218			1345	
Approach Delay, s/veh					32.6			25.0			4.5	
Approach LOS					C			C			A	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	7.6	48.6				56.2		38.8				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	7.0	31.0				42.0		44.0				
Max Q Clear Time (g_c+I1), s	4.9	7.3				27.5		30.2				
Green Ext Time (p_c), s	0.0	9.0				6.8		4.5				

Intersection Summary		
HCM 6th Ctrl Delay		18.8
HCM 6th LOS		B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.97	2.31	3.09	3.14
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	1	5
Total Flow Rate (veh/h)	0	842	1218	1345
Effct. Green for Bike (s)	0.0	37.4	48.6	39.3
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	787	1023	827
Bicycle Delay (s/bike)	0.0	17.5	11.3	16.4
Bicycle Compliance		Fair	Fair	Fair
Bicycle LOS Score	0.00	2.93	1.94	1.78
Bicycle LOS		C	B	B

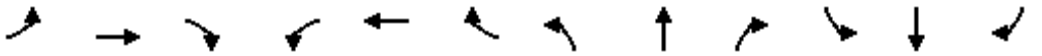


Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	415	390	100	666	1278	136
v/c Ratio	0.91	0.76	0.53	0.31	0.77	0.12
Control Delay	57.6	31.1	48.7	10.0	24.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.6	31.1	48.7	10.0	24.1	0.2
Queue Length 50th (ft)	248	153	58	98	405	0
Queue Length 95th (ft)	#402	256	90	111	#533	m0
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	475	530	216	2125	1659	1174
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.74	0.46	0.31	0.77	0.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	494	0	206	0	0	0	79	526	0	0	1150	122
Future Volume (veh/h)	494	0	206	0	0	0	79	526	0	0	1150	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	402	232	237	0	0	0	100	666	0	0	1278	136
Peak Hour Factor	0.87	0.87	0.87	0.25	0.25	0.25	0.79	0.79	0.79	0.90	0.90	0.90
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	494	251	256	0	2	0	125	2128	0	0	1730	1144
Arrive On Green	0.30	0.30	0.30	0.00	0.00	0.00	0.08	0.60	0.00	0.00	0.65	0.65
Sat Flow, veh/h	1668	848	866	0	1870	0	1668	3647	0	0	3647	1448
Grp Volume(v), veh/h	402	0	469	0	0	0	100	666	0	0	1278	136
Grp Sat Flow(s),veh/h/ln	1668	0	1714	0	1870	0	1668	1777	0	0	1777	1448
Q Serve(g_s), s	21.2	0.0	25.2	0.0	0.0	0.0	5.6	8.8	0.0	0.0	23.1	1.5
Cycle Q Clear(g_c), s	21.2	0.0	25.2	0.0	0.0	0.0	5.6	8.8	0.0	0.0	23.1	1.5
Prop In Lane	1.00		0.51	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	494	0	508	0	2	0	125	2128	0	0	1730	1144
V/C Ratio(X)	0.81	0.00	0.92	0.00	0.00	0.00	0.80	0.31	0.00	0.00	0.74	0.12
Avail Cap(c_a), veh/h	509	0	523	0	79	0	202	2128	0	0	1730	1144
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.73	0.73
Uniform Delay (d), s/veh	31.0	0.0	32.4	0.0	0.0	0.0	43.2	9.4	0.0	0.0	12.7	1.7
Incr Delay (d2), s/veh	9.6	0.0	22.0	0.0	0.0	0.0	10.9	0.4	0.0	0.0	2.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.7	0.0	19.2	0.0	0.0	0.0	4.7	5.4	0.0	0.0	9.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	0.0	54.4	0.0	0.0	0.0	54.2	9.8	0.0	0.0	14.8	1.8
LnGrp LOS	D	A	D	A	A	A	D	A	A	A	B	A
Approach Vol, veh/h		871			0			766			1414	
Approach Delay, s/veh		48.0			0.0			15.6			13.5	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.6	52.2		32.1		62.9		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	11.5	33.0		29.0		48.0		4.0				
Max Q Clear Time (g_c+I1), s	7.6	25.1		27.2		10.8		0.0				
Green Ext Time (p_c), s	0.1	5.2		0.9		4.8		0.0				

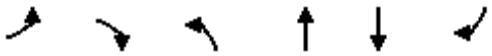
Intersection Summary												
HCM 6th Ctrl Delay			23.9									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.51	1.43	2.98	3.09
Pedestrian Crosswalk LOS	C	A	C	C

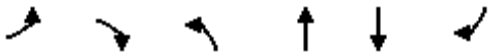
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	2	6
Total Flow Rate (veh/h)	805	0	766	1414
Effct. Green for Bike (s)	27.9	4.3	57.1	44.5
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	587	91	1202	937
Bicycle Delay (s/bike)	23.7	43.3	7.6	13.5
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.96	1.39	1.98	2.50
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1198	96	120	456	266	505
v/c Ratio	0.91	0.14	0.28	0.57	0.56	0.50
Control Delay	33.9	9.2	12.0	16.5	27.2	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	9.2	12.0	16.5	27.2	6.8
Queue Length 50th (ft)	237	9	28	130	99	77
Queue Length 95th (ft)	#481	46	53	201	167	132
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		180	200			
Base Capacity (vph)	1323	692	461	1768	1436	1004
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.14	0.26	0.26	0.19	0.50

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1150	92	108	410	255	485
Future Volume (veh/h)	1150	92	108	410	255	485
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	1198	96	120	456	266	505
Peak Hour Factor	0.96	0.96	0.90	0.90	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1281	611	351	844	550	1039
Arrive On Green	0.37	0.37	0.07	0.45	0.29	0.29
Sat Flow, veh/h	3456	1648	1781	1870	1870	1536
Grp Volume(v), veh/h	1198	96	120	456	266	505
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1536
Q Serve(g_s), s	22.5	2.6	3.0	11.9	7.9	11.0
Cycle Q Clear(g_c), s	22.5	2.6	3.0	11.9	7.9	11.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1281	611	351	844	550	1039
V/C Ratio(X)	0.94	0.16	0.34	0.54	0.48	0.49
Avail Cap(c_a), veh/h	1284	613	495	1001	1390	1729
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	14.1	14.2	13.4	19.5	5.6
Incr Delay (d2), s/veh	13.2	0.3	0.6	0.7	0.9	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	15.0	5.4	1.9	7.6	5.7	12.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.6	14.5	14.8	14.1	20.4	6.1
LnGrp LOS	C	B	B	B	C	A
Approach Vol, veh/h	1294			576	771	
Approach Delay, s/veh	32.2			14.2	11.0	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		36.3		30.9	10.6	25.8
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0		25.0	10.0	50.0
Max Q Clear Time (g_c+I1), s		13.9		24.5	5.0	13.0
Green Ext Time (p_c), s		3.2		0.5	0.1	6.5

Intersection Summary	
HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	10.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	1	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196586.8	32400.0	294852.8
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	849.0	8666.9	0.0
Crosswalk Circulation Code	A	A	-
Pedestrian Delay (s/p)	43.8	43.8	51.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.91	2.41	2.93
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	3	6	4
Total Flow Rate (veh/h)	1294	576	771
Effct. Green for Bike (s)	25.6	28.5	17.0
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	497	553	330
Bicycle Delay (s/bike)	29.1	27.0	36.0
Bicycle Compliance	Fair	Fair	Poor
Bicycle LOS Score	2.11	2.23	2.54
Bicycle LOS	B	B	C

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	120	1264	279	0	722
Future Vol, veh/h	0	120	1264	279	0	722
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	95	95	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	129	1331	294	0	752

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	813	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	322	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	322	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	322	-
HCM Lane V/C Ratio	-	-	0.401	-
HCM Control Delay (s)	-	-	23.5	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1.9	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	64612.0
Level of Service	F

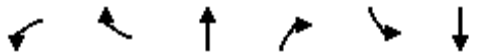
Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	1986
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.93
Delay for adq Gap	64613.84
Avg Ped Delay (s)	64612.02

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	64612.0
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	1986
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.93
Delay for adq Gap	64613.84
Avg Ped Delay (s)	64612.02

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	232	1564	76	690
v/c Ratio	0.46	0.63	0.45	0.27
Control Delay	24.6	7.7	17.2	4.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	24.6	7.7	17.2	4.8
Queue Length 50th (ft)	40	134	10	42
Queue Length 95th (ft)	70	364	80	120
Internal Link Dist (ft)	742	269		1054
Turn Bay Length (ft)			170	
Base Capacity (vph)	1318	2674	185	2764
Starvation Cap Reductn	0	60	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.18	0.60	0.41	0.25

Intersection Summary



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	136	86	1091	301	69	628
Future Volume (vph)	136	86	1091	301	69	628
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		6.0		6.0	6.0
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	0.99		0.99		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.94		0.97		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3271		3406		1769	3539
Flt Permitted	0.97		1.00		0.13	1.00
Satd. Flow (perm)	3271		3406		236	3539
Peak-hour factor, PHF	0.96	0.96	0.89	0.89	0.91	0.91
Adj. Flow (vph)	142	90	1226	338	76	690
RTOR Reduction (vph)	60	0	17	0	0	0
Lane Group Flow (vph)	172	0	1547	0	76	690
Confl. Peds. (#/hr)		3		2	2	
Confl. Bikes (#/hr)				4		
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	10.7		56.2		56.2	56.2
Effective Green, g (s)	10.7		56.2		56.2	56.2
Actuated g/C Ratio	0.14		0.72		0.72	0.72
Clearance Time (s)	5.0		6.0		6.0	6.0
Vehicle Extension (s)	2.0		5.5		5.5	5.5
Lane Grp Cap (vph)	449		2457		170	2553
v/s Ratio Prot	c0.05		c0.45			0.19
v/s Ratio Perm					0.32	
v/c Ratio	0.38		0.63		0.45	0.27
Uniform Delay, d1	30.6		5.5		4.5	3.8
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	0.2		0.8		4.5	0.1
Delay (s)	30.8		6.3		9.0	3.9
Level of Service	C		A		A	A
Approach Delay (s)	30.8		6.3			4.4
Approach LOS	C		A			A

Intersection Summary			
HCM 2000 Control Delay	8.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	77.9	Sum of lost time (s)	11.0
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

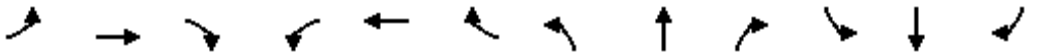
Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	1	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	2	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	4620.9	16173.2	10746.5
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	2052.3	0.0	3178.8
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	42.8	40.1	42.8
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	3.10	2.85
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	5	6
Total Flow Rate (veh/h)	232	1564	766
Effct. Green for Bike (s)	10.7	56.2	56.2
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	212	1113	1113
Bicycle Delay (s/bike)	40.4	10.0	10.0
Bicycle Compliance	Poor	Good	Good
Bicycle LOS Score	1.17	2.48	2.11
Bicycle LOS	A	B	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	45	34	211	215	376	23	554	734	351	453
v/c Ratio	0.26	0.15	0.56	0.56	0.59	0.20	0.62	0.79	0.73	0.24
Control Delay	50.7	1.3	42.2	42.4	7.8	58.9	38.4	12.4	48.3	18.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.7	1.3	42.2	42.4	7.8	58.9	38.4	12.4	48.3	18.5
Queue Length 50th (ft)	26	0	117	120	0	13	154	103	192	67
Queue Length 95th (ft)	76	0	247	251	53	55	317	193	#623	217
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		100	165	
Base Capacity (vph)	323	355	911	915	1016	211	1534	1297	479	2069
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.10	0.23	0.23	0.37	0.11	0.36	0.57	0.73	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	17	30	347	11	316	22	521	690	316	396	12
Future Volume (veh/h)	23	17	30	347	11	316	22	521	690	316	396	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	26	19	34	422	0	0	23	554	734	351	440	13
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.94	0.94	0.94	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	49	36	71	535	0		42	1456	874	390	2131	63
Arrive On Green	0.05	0.05	0.05	0.15	0.00	0.00	0.02	0.41	0.41	0.22	0.61	0.61
Sat Flow, veh/h	1050	768	1512	3563	0	1585	1781	3554	1552	1781	3521	104
Grp Volume(v), veh/h	45	0	34	422	0	0	23	554	734	351	222	231
Grp Sat Flow(s),veh/h/ln	1818	0	1512	1781	0	1585	1781	1777	1552	1781	1777	1848
Q Serve(g_s), s	2.4	0.0	2.1	11.1	0.0	0.0	1.2	10.6	38.5	18.7	5.5	5.5
Cycle Q Clear(g_c), s	2.4	0.0	2.1	11.1	0.0	0.0	1.2	10.6	38.5	18.7	5.5	5.5
Prop In Lane	0.58		1.00	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	85	0	71	535	0		42	1456	874	390	1075	1118
V/C Ratio(X)	0.53	0.00	0.48	0.79	0.00		0.54	0.38	0.84	0.90	0.21	0.21
Avail Cap(c_a), veh/h	279	0	232	1825	0		201	1456	874	456	1075	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.5	0.0	45.4	40.0	0.0	0.0	47.1	20.1	17.9	37.1	8.7	8.7
Incr Delay (d2), s/veh	1.9	0.0	1.9	1.0	0.0	0.0	4.0	0.4	8.0	19.1	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	0.0	1.5	8.3	0.0	0.0	1.1	7.6	26.6	15.0	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	0.0	47.2	41.0	0.0	0.0	51.1	20.5	26.0	56.1	8.9	8.9
LnGrp LOS	D	A	D	D	A		D	C	C	E	A	A
Approach Vol, veh/h		79			422	A		1311			804	
Approach Delay, s/veh		47.3			41.0			24.1			29.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.9	44.5		9.1	5.8	63.6		19.2				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	25.0	40.0		15.0	11.0	40.0		50.0				
Max Q Clear Time (g_c+I1), s	20.7	40.5		4.4	3.2	7.5		13.1				
Green Ext Time (p_c), s	0.7	0.0		0.1	0.0	5.5		1.1				

Intersection Summary		
HCM 6th Ctrl Delay		29.2
HCM 6th LOS		C

Notes

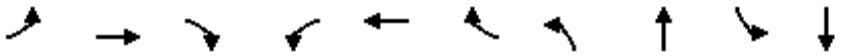
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	0	6	1	1
Ped. Right-Left Flow Rate (p/h)	0	3	3	1
Ped. R. Sidewalk Flow Rate (p/h)	1	1	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	117946.6	49123.9	45313.5	294866.4
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	1678.8	493.8
Crosswalk Circulation Code	-	F	A	A
Pedestrian Delay (s/p)	65.7	65.7	65.7	65.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.04	3.02	3.44	2.78
Pedestrian Crosswalk LOS	B	C	C	C

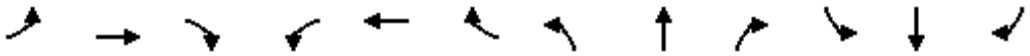
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	4	2	4	9
Total Flow Rate (veh/h)	79	802	1311	804
Effct. Green for Bike (s)	9.4	22.5	25.2	52.4
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	128	306	343	713
Bicycle Delay (s/bike)	64.5	52.8	50.6	30.6
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.73	3.89	2.33	1.90
Bicycle LOS	C	D	B	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	87	176	124	144	123	82	274	418	343	750
v/c Ratio	0.41	0.59	0.31	0.57	0.33	0.18	0.69	0.60	0.82	0.67
Control Delay	40.4	39.7	3.3	42.7	32.1	0.8	45.9	32.0	49.9	27.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.4	39.7	3.3	42.7	32.1	0.8	45.9	32.0	49.9	27.2
Queue Length 50th (ft)	39	79	0	64	52	0	65	92	156	161
Queue Length 95th (ft)	73	118	0	130	103	0	#155	161	#396	267
Internal Link Dist (ft)		1706			363			1325		863
Turn Bay Length (ft)	100		100	105		410	300		210	
Base Capacity (vph)	416	633	643	323	511	561	403	1001	416	1422
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.28	0.19	0.45	0.24	0.15	0.68	0.42	0.82	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	125	88	118	101	67	263	346	56	312	635	47
Future Volume (veh/h)	62	125	88	118	101	67	263	346	56	312	635	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.94	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	176	124	144	123	82	274	360	58	343	698	52
Peak Hour Factor	0.71	0.71	0.71	0.82	0.82	0.82	0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	318	263	186	392	321	376	569	91	394	1000	74
Arrive On Green	0.06	0.17	0.17	0.10	0.21	0.21	0.11	0.19	0.19	0.22	0.30	0.30
Sat Flow, veh/h	1781	1870	1549	1781	1870	1529	3456	3042	484	1781	3339	249
Grp Volume(v), veh/h	87	176	124	144	123	82	274	208	210	343	371	379
Grp Sat Flow(s),veh/h/ln	1781	1870	1549	1781	1870	1529	1728	1777	1749	1781	1777	1811
Q Serve(g_s), s	3.2	5.7	4.8	5.2	3.7	3.0	5.1	7.1	7.3	12.3	12.2	12.3
Cycle Q Clear(g_c), s	3.2	5.7	4.8	5.2	3.7	3.0	5.1	7.1	7.3	12.3	12.2	12.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.14
Lane Grp Cap(c), veh/h	115	318	263	186	392	321	376	333	327	394	532	542
V/C Ratio(X)	0.76	0.55	0.47	0.77	0.31	0.26	0.73	0.63	0.64	0.87	0.70	0.70
Avail Cap(c_a), veh/h	485	735	608	377	594	485	470	591	582	485	832	848
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	25.2	24.8	28.9	22.1	21.8	28.5	24.8	24.8	24.9	20.5	20.5
Incr Delay (d2), s/veh	9.6	0.6	0.5	6.7	0.2	0.2	3.6	2.5	2.7	12.7	2.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	4.3	3.0	4.3	2.7	1.8	3.8	5.3	5.4	10.1	8.4	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	25.7	25.3	35.6	22.3	22.0	32.1	27.3	27.5	37.5	22.6	22.6
LnGrp LOS	D	C	C	D	C	C	C	C	C	D	C	C
Approach Vol, veh/h		387			349			692			1093	
Approach Delay, s/veh		28.8			27.7			29.3			27.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.6	18.4	10.9	17.2	12.2	25.8	8.3	19.9
Change Period (Y+Rc), s	5.0	6.0	4.0	* 6	5.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	18.0	22.0	14.0	* 26	9.0	31.0	18.0	21.0
Max Q Clear Time (g_c+I1), s	14.3	9.3	7.2	7.7	7.1	14.3	5.2	5.7
Green Ext Time (p_c), s	0.4	2.4	0.2	0.8	0.2	5.1	0.2	0.5

Intersection Summary	
HCM 6th Ctrl Delay	28.1
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	90.0	70.0	80.0	70.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	4	6	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	6.0	6.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	60.00	60.00	100.00
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	3	1	4	0
Ped. R. Sidewalk Flow Rate (p/h)	6	3	2	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	4063.9	4904.6	2324.1	30000.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	4667.7	1717.3	953.5	0.0
Crosswalk Circulation Code	A	A	A	-
Pedestrian Delay (s/p)	39.6	39.6	39.6	39.6
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.62	2.48	2.88	2.84
Pedestrian Crosswalk LOS	C	B	C	C

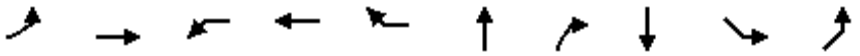
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	1	8	15
Total Flow Rate (veh/h)	387	349	692	1093
Effct. Green for Bike (s)	12.6	15.9	15.5	24.8
Cross Street Width (ft)	80.0	80.0	62.0	75.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	252	318	310	496
Bicycle Delay (s/bike)	38.3	35.4	35.8	28.5
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.14	2.07	1.79	2.32
Bicycle LOS	B	B	B	B

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	313	4	0	5	307	4	0	10
Future Vol, veh/h	0	0	0	0	313	4	0	5	307	4	0	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	10	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	340	4	0	5	334	4	0	11
Number of Lanes	0	0	0	0	1	1	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	13.8	10.4	8.1
HCM LOS	B	B	A

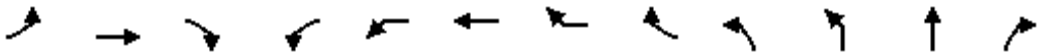
Lane	NBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	0%	29%
Vol Thru, %	2%	100%	0%	0%
Vol Right, %	98%	0%	100%	71%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	312	313	4	14
LT Vol	0	0	0	4
Through Vol	5	313	0	0
RT Vol	307	0	4	10
Lane Flow Rate	339	340	4	15
Geometry Grp	2	7	7	2
Degree of Util (X)	0.409	0.514	0.006	0.021
Departure Headway (Hd)	4.338	5.434	4.592	4.931
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	831	660	771	720
Service Time	2.368	3.209	2.368	3.001
HCM Lane V/C Ratio	0.408	0.515	0.005	0.021
HCM Control Delay	10.4	13.9	7.4	8.1
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	2	3	0	0.1



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	19	865	63	677	348	47	84	489	20	20
v/c Ratio	0.29	0.83	0.76	0.54	0.55	0.09	0.11	0.87	0.20	0.07
Control Delay	66.2	45.2	101.0	32.9	21.8	22.9	0.3	48.6	58.3	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.2	45.2	101.0	32.9	21.8	22.9	0.3	48.6	58.3	0.6
Queue Length 50th (ft)	12	251	39	153	78	16	0	249	12	0
Queue Length 95th (ft)	42	#508	#124	303	216	52	0	361	43	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	66	1037	83	1257	628	543	756	559	98	339
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.83	0.76	0.54	0.55	0.09	0.11	0.87	0.20	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	18	801	4	24	28	555	148	138	13	20	8	73
Future Volume (vph)	18	801	4	24	28	555	148	138	13	20	8	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00				1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.94				1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85				1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00	1.00				0.96	1.00
Satd. Flow (prot)	1770	3536			1770	3539	1490				1786	1554
Flt Permitted	0.95	1.00			0.95	1.00	1.00				0.69	1.00
Satd. Flow (perm)	1770	3536			1770	3539	1490				1275	1554
Peak-hour factor, PHF	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.87	0.87	0.87	0.87
Adj. Flow (vph)	19	861	4	29	34	677	180	168	15	23	9	84
RTOR Reduction (vph)	0	0	0	0	0	0	106	0	0	0	0	51
Lane Group Flow (vph)	19	865	0	0	63	677	242	0	0	0	47	33
Confl. Peds. (#/hr)			1				5	5	2	2		5
Confl. Bikes (#/hr)			2				4	4				5
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	Perm	NA	Perm
Protected Phases	5	2		1	1	6					8	
Permitted Phases							6		8	8		8
Actuated Green, G (s)	1.4	35.3			5.1	38.0	38.0				45.6	45.6
Effective Green, g (s)	1.4	35.3			5.1	38.0	38.0				45.6	45.6
Actuated g/C Ratio	0.01	0.30			0.04	0.32	0.32				0.39	0.39
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0				3.5	3.5
Lane Grp Cap (vph)	21	1065			77	1147	483				496	604
v/s Ratio Prot	0.01	c0.24			c0.04	c0.19						
v/s Ratio Perm							0.16				0.04	0.02
v/c Ratio	0.90	0.81			0.82	0.59	0.50				0.09	0.05
Uniform Delay, d1	57.8	37.9			55.6	33.1	31.9				22.7	22.3
Progression Factor	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Incremental Delay, d2	149.1	5.4			44.7	1.2	1.7				0.1	0.0
Delay (s)	206.9	43.3			100.3	34.3	33.7				22.8	22.4
Level of Service	F	D			F	C	C				C	C
Approach Delay (s)		46.8				37.9					22.5	
Approach LOS		D				D					C	

Intersection Summary			
HCM 2000 Control Delay	45.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	117.2	Sum of lost time (s)	27.0
Intersection Capacity Utilization	82.4%	ICU Level of Service	E
Analysis Period (min)	15		

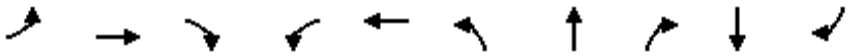
c Critical Lane Group

Movement	SBL	SBT	SBR	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations											
Traffic Volume (vph)	278	3	47	5	5	5	5	5	5	5	5
Future Volume (vph)	278	3	47	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0				5.0		
Lane Util. Factor		1.00			1.00				1.00		
Frpb, ped/bikes		1.00			1.00				1.00		
Flpb, ped/bikes		0.99			1.00				1.00		
Frt		0.98			0.93				0.93		
Flt Protected		0.96			0.98				0.98		
Satd. Flow (prot)		1737			1695				1695		
Flt Permitted		0.73			1.00				0.98		
Satd. Flow (perm)		1314			1737				1695		
Peak-hour factor, PHF	0.67	0.67	0.67	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	415	4	70	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	0	489	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)	5		2								
Confl. Bikes (#/hr)											
Turn Type	Perm	NA		Perm	Prot			Perm	Prot		
Protected Phases		4			7				3		
Permitted Phases	4			7				3			
Actuated Green, G (s)		45.6			2.1				3.1		
Effective Green, g (s)		45.6			2.1				3.1		
Actuated g/C Ratio		0.39			0.02				0.03		
Clearance Time (s)		5.0			5.0				5.0		
Vehicle Extension (s)		3.5			2.0				1.5		
Lane Grp Cap (vph)		511			31				44		
v/s Ratio Prot											
v/s Ratio Perm		c0.37			c0.01				0.00		
v/c Ratio		0.96			0.65				0.01		
Uniform Delay, d1		34.8			57.2				55.6		
Progression Factor		1.00			1.00				1.00		
Incremental Delay, d2		29.1			29.6				0.0		
Delay (s)		63.9			86.8				55.6		
Level of Service		E			F				E		
Approach Delay (s)		63.9			86.8				55.6		
Approach LOS		E			F				E		

Intersection Summary

Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29667.5	11552.9	0.0	72900.0	24278.3
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2260.8	4209.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	52.0	52.0	52.0	52.0	52.0	52.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.79	3.30	2.02	2.05	1.82	1.78
Pedestrian Crosswalk LOS	C	C	B	B	B	B

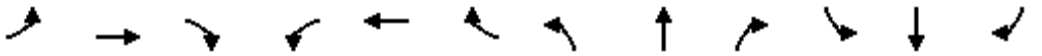
Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	884	1088	131	489	20	20
Effct. Green for Bike (s)	31.4	38.0	45.6	45.6	6.1	7.1
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	502	608	730	730	98	114
Bicycle Delay (s/bike)	35.1	30.5	25.4	25.3	56.5	55.6
Bicycle Compliance	Poor	Poor	Fair	Fair	Poor	Poor
Bicycle LOS Score	2.79	1.55	2.87	2.74	2.62	2.20
Bicycle LOS	C	B	C	C	C	B



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	19	1178	95	209	923	29	29	192	24	13
v/c Ratio	0.15	0.67	0.11	0.48	0.26	0.20	0.20	0.39	0.11	0.04
Control Delay	46.6	23.3	0.3	39.5	11.7	44.6	44.6	7.2	34.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.6	23.3	0.3	39.5	11.7	44.6	44.6	7.2	34.9	0.2
Queue Length 50th (ft)	9	257	0	52	69	14	14	0	12	0
Queue Length 95th (ft)	37	#581	0	101	193	37	37	9	25	0
Internal Link Dist (ft)		217			575		1379		108	
Turn Bay Length (ft)	145		90	350		150				50
Base Capacity (vph)	148	1748	845	767	3585	704	704	626	746	751
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.67	0.11	0.27	0.26	0.04	0.04	0.31	0.03	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	1013	82	169	715	32	38	0	125	14	1	8
Future Volume (veh/h)	16	1013	82	169	715	32	38	0	125	14	1	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	1178	95	209	883	40	58	0	192	22	2	12
Peak Hour Factor	0.86	0.86	0.86	0.81	0.81	0.81	0.65	0.65	0.65	0.64	0.64	0.64
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	31	1507	656	303	2472	112	527	0	372	64	6	61
Arrive On Green	0.02	0.42	0.42	0.09	0.49	0.49	0.15	0.00	0.15	0.04	0.04	0.04
Sat Flow, veh/h	1781	3554	1546	3456	4999	226	3563	0	1575	1639	149	1557
Grp Volume(v), veh/h	19	1178	95	209	601	322	58	0	192	24	0	12
Grp Sat Flow(s),veh/h/ln	1781	1777	1546	1728	1702	1821	1781	0	1575	1788	0	1557
Q Serve(g_s), s	0.8	22.8	3.0	4.7	8.6	8.7	1.1	0.0	8.5	1.0	0.0	0.6
Cycle Q Clear(g_c), s	0.8	22.8	3.0	4.7	8.6	8.7	1.1	0.0	8.5	1.0	0.0	0.6
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	31	1507	656	303	1683	900	527	0	372	70	0	61
V/C Ratio(X)	0.62	0.78	0.14	0.69	0.36	0.36	0.11	0.00	0.52	0.34	0.00	0.20
Avail Cap(c_a), veh/h	134	1561	679	694	1922	1028	1341	0	732	673	0	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.9	19.8	14.1	35.3	12.4	12.4	29.4	0.0	26.5	37.3	0.0	37.1
Incr Delay (d2), s/veh	10.4	4.1	0.5	1.5	0.6	1.1	0.1	0.0	0.8	1.8	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	13.9	1.8	3.5	5.4	6.0	0.8	0.0	5.5	0.9	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	23.9	14.6	36.8	13.0	13.5	29.5	0.0	27.3	39.0	0.0	38.0
LnGrp LOS	D	C	B	D	B	B	C	A	C	D	A	D
Approach Vol, veh/h		1292			1132			250			36	
Approach Delay, s/veh		23.6			17.5			27.8			38.7	
Approach LOS		C			B			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.0	39.8		9.1	7.4	45.4		17.8				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	16.0	35.0		30.0	6.0	45.0		30.0				
Max Q Clear Time (g_c+I1), s	6.7	24.8		3.0	2.8	10.7		10.5				
Green Ext Time (p_c), s	0.4	9.0		0.1	0.0	19.1		0.8				

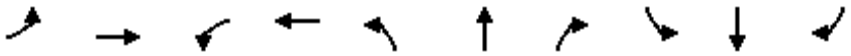
Intersection Summary			
HCM 6th Ctrl Delay		21.6	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	105.0	120.0	90.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	8	5	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	14.00	14.00	14.00	14.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	2
Ped. Right-Left Flow Rate (p/h)	1	0	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	40	25
Right Corner Area per Ped (sq.ft)	2477.3	2076.3	6300.0	1352.5
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3603.4	0.0	4994.2	1565.4
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	56.9	56.9	56.9	56.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.11	3.18	2.52	1.99
Pedestrian Crosswalk LOS	C	C	C	B

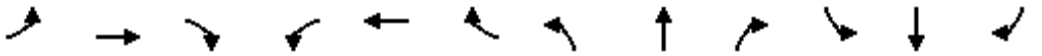
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	16	9	0	1
Total Flow Rate (veh/h)	1292	1132	250	36
Effct. Green for Bike (s)	38.3	54.2	6.8	9.3
Cross Street Width (ft)	70.0	55.0	87.0	82.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	567	803	101	138
Bicycle Delay (s/bike)	34.9	24.3	60.9	58.5
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.20	1.74	2.02	1.59
Bicycle LOS	B	B	B	B



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	1317	181	678	249	252	692	14	14	14
v/c Ratio	0.41	0.64	0.61	0.23	0.78	0.79	0.90	0.10	0.11	0.05
Control Delay	64.5	27.1	35.9	1.8	55.6	56.0	28.0	41.6	41.7	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.5	27.1	35.9	1.8	55.6	56.0	28.0	41.6	41.7	0.4
Queue Length 50th (ft)	18	257	123	24	153	155	157	9	9	0
Queue Length 95th (ft)	#52	#351	194	27	#211	#214	150	18	18	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	70	2062	295	2961	338	340	766	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.64	0.61	0.23	0.74	0.74	0.90	0.05	0.05	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	1121	91	161	585	19	376	10	533	11	7	9
Future Volume (veh/h)	27	1121	91	161	585	19	376	10	533	11	7	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	29	1218	99	181	657	21	497	0	692	14	15	14
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.77	0.77	0.77	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	327	1437	117	540	2234	71	616	0	750	56	55	49
Arrive On Green	0.18	0.30	0.30	0.65	0.88	0.88	0.18	0.00	0.18	0.03	0.03	0.03
Sat Flow, veh/h	1781	4789	389	1668	5077	162	3337	0	1460	1781	1752	1561
Grp Volume(v), veh/h	29	866	451	181	440	238	497	0	692	14	15	14
Grp Sat Flow(s),veh/h/ln	1781	1702	1774	1668	1702	1834	1668	0	1460	1781	1752	1561
Q Serve(g_s), s	1.4	23.9	23.9	4.9	2.1	2.1	14.3	0.0	10.9	0.8	0.8	0.9
Cycle Q Clear(g_c), s	1.4	23.9	23.9	4.9	2.1	2.1	14.3	0.0	10.9	0.8	0.8	0.9
Prop In Lane	1.00		0.22	1.00		0.09	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	327	1021	532	540	1498	807	616	0	750	56	55	49
V/C Ratio(X)	0.09	0.85	0.85	0.34	0.29	0.30	0.81	0.00	0.92	0.25	0.27	0.28
Avail Cap(c_a), veh/h	327	1021	532	540	1498	807	667	0	773	285	280	250
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.76	0.76	0.76	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.9	32.9	32.9	12.8	3.5	3.5	39.1	0.0	22.7	47.3	47.3	47.3
Incr Delay (d2), s/veh	0.1	8.0	14.2	0.3	0.4	0.7	6.8	0.0	16.3	2.3	2.6	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	15.7	17.4	2.9	1.2	1.5	10.5	0.0	24.2	0.7	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	40.8	47.1	13.0	3.9	4.2	45.9	0.0	38.9	49.5	49.9	50.4
LnGrp LOS	C	D	D	B	A	A	D	A	D	D	D	D
Approach Vol, veh/h		1346			859			1189			43	
Approach Delay, s/veh		42.8			5.9			41.8			49.9	
Approach LOS		D			A			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	36.4	34.0		7.2	22.4	48.0		22.5				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	18.0	30.0		16.0	4.0	44.0		20.0				
Max Q Clear Time (g_c+I1), s	6.9	25.9		2.9	3.4	4.1		16.3				
Green Ext Time (p_c), s	0.5	2.9		0.1	0.0	5.0		2.2				

Intersection Summary			
HCM 6th Ctrl Delay		33.3	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

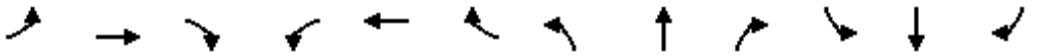
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	100.0	90.0	100.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	0.1	8.0	0.1	12.0
Right Corner Size B (ft)	6.0	0.1	10.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.60	0.80	1.00	1.20
Ped. Left-Right Flow Rate (p/h)	0	0	3	1
Ped. Right-Left Flow Rate (p/h)	2	0	8	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21.6	668.2	44.2	270.0
Right Corner Quality of Service	D	A	B	A
Ped. Circulation Area (sq.ft)	6056.1	0.0	1035.7	11234.4
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.01	3.06	2.85	2.17
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	20	11	0	0
Total Flow Rate (veh/h)	1346	859	1193	42
Effct. Green for Bike (s)	41.3	58.5	20.4	8.1
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	826	1170	408	162
Bicycle Delay (s/bike)	17.4	8.7	31.7	42.2
Bicycle Compliance	Fair	Good	Poor	Poor
Bicycle LOS Score	2.01	1.74	3.86	2.94
Bicycle LOS	B	B	D	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	597	1476	904	126	206
v/c Ratio	0.69	0.57	0.63	0.40	0.67
Control Delay	25.1	5.1	27.2	36.5	40.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	5.1	27.2	36.5	40.6
Queue Length 50th (ft)	164	90	222	72	105
Queue Length 95th (ft)	m122	105	#401	100	143
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	859	2570	1427	557	513
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.57	0.63	0.23	0.40

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	472	1166	0	0	657	130	111	3	179	0	0	0
Future Volume (veh/h)	472	1166	0	0	657	130	111	3	179	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	597	1476	0	0	755	149	126	3	203			
Peak Hour Factor	0.79	0.79	0.79	0.87	0.87	0.87	0.88	0.88	0.88			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1371	2607	0	0	796	157	311	4	270			
Arrive On Green	0.85	1.00	0.00	0.00	0.27	0.27	0.19	0.19	0.19			
Sat Flow, veh/h	3237	3647	0	0	3043	582	1668	21	1450			
Grp Volume(v), veh/h	597	1476	0	0	455	449	126	0	206			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1754	1668	0	1471			
Q Serve(g_s), s	4.5	0.0	0.0	0.0	25.1	25.1	6.6	0.0	13.2			
Cycle Q Clear(g_c), s	4.5	0.0	0.0	0.0	25.1	25.1	6.6	0.0	13.2			
Prop In Lane	1.00		0.00	0.00		0.33	1.00		0.99			
Lane Grp Cap(c), veh/h	1371	2607	0	0	480	474	311	0	274			
V/C Ratio(X)	0.44	0.57	0.00	0.00	0.95	0.95	0.41	0.00	0.75			
Avail Cap(c_a), veh/h	1371	2607	0	0	480	474	567	0	500			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.61	0.61	0.00	0.00	0.96	0.96	1.00	0.00	1.00			
Uniform Delay (d), s/veh	4.7	0.0	0.0	0.0	35.8	35.8	35.8	0.0	38.5			
Incr Delay (d2), s/veh	0.1	0.5	0.0	0.0	29.2	29.5	0.9	0.0	4.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.0	0.4	0.0	0.0	20.5	20.3	5.0	0.0	8.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.9	0.5	0.0	0.0	65.0	65.3	36.7	0.0	42.6			
LnGrp LOS	A	A	A	A	E	E	D	A	D			
Approach Vol, veh/h		2073			904			332				
Approach Delay, s/veh		1.8			65.2			40.4				
Approach LOS		A			E			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.4			46.4	31.0		22.6				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			27.0	27.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			6.5	27.1		15.2				
Green Ext Time (p_c), s		18.0			2.9	0.0		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			23.0									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	100.0	55.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0	0.1
Right Corner Size B (ft)	6.0	6.0	6.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	3548.2	4628.6	1884.6	0.0
Right Corner Quality of Service	A	A	A	-
Ped. Circulation Area (sq.ft)	0.0	1347.2	1252.8	0.0
Crosswalk Circulation Code	-	A	A	-
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.03	2.90	2.00	2.09
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	7	12	0	0
Total Flow Rate (veh/h)	2073	904	332	0
Effct. Green for Bike (s)	72.6	41.6	19.4	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1452	832	388	0
Bicycle Delay (s/bike)	3.8	17.2	32.5	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.82	1.78	2.27	0.00
Bicycle LOS	C	B	B	

Intersection	
Intersection Delay, s/veh	3.3
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	123	20	175
Demand Flow Rate, veh/h	126	20	179
Vehicles Circulating, veh/h	100	91	3
Vehicles Exiting, veh/h	82	135	108
Ped Vol Crossing Leg, #/h	5	0	0
Ped Cap Adj	0.999	1.000	1.000
Approach Delay, s/veh	3.6	2.9	3.2
Approach LOS	A	A	A

Lane	Left	Left	Left	Right
Designated Moves	LT	TR	L	TR
Assumed Moves	LT	TR	L	TR
RT Channelized				
Lane Util	1.000	1.000	0.559	0.441
Follow-Up Headway, s	2.535	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328
Entry Flow, veh/h	126	20	100	79
Cap Entry Lane, veh/h	1304	1314	1346	1417
Entry HV Adj Factor	0.979	0.997	0.980	0.975
Flow Entry, veh/h	123	20	98	77
Cap Entry, veh/h	1276	1311	1319	1381
V/C Ratio	0.097	0.015	0.074	0.056
Control Delay, s/veh	3.6	2.9	3.3	3.0
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection	
Intersection Delay, s/veh	3.4
Intersection LOS	A

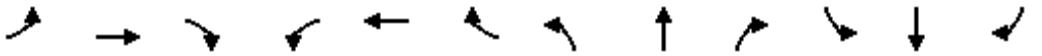
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	23	106	122	17
Demand Flow Rate, veh/h	23	108	124	17
Vehicles Circulating, veh/h	104	15	25	108
Vehicles Exiting, veh/h	21	134	102	15
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.1	3.3	3.5	3.0
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	23	108	124	17
Cap Entry Lane, veh/h	1241	1359	1345	1236
Entry HV Adj Factor	0.989	0.979	0.983	0.994
Flow Entry, veh/h	23	106	122	17
Cap Entry, veh/h	1227	1331	1322	1229
V/C Ratio	0.019	0.079	0.092	0.014
Control Delay, s/veh	3.1	3.3	3.5	3.0
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	2	459	363	2	828	320	155	510
v/c Ratio	0.01	0.95	0.23	0.04	1.03	0.40	0.76	0.47
Control Delay	0.0	75.8	0.3	66.5	74.6	10.0	77.6	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	75.8	0.3	66.5	74.6	10.0	77.6	20.2
Queue Length 50th (ft)	0	344	0	2	621	43	117	195
Queue Length 95th (ft)	0	#604	0	12	#1277	156	#281	508
Internal Link Dist (ft)	160	615			469			438
Turn Bay Length (ft)			180	120		370	490	
Base Capacity (vph)	505	483	1583	57	806	796	212	1075
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.95	0.23	0.04	1.03	0.40	0.73	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	356	2	283	2	778	301	136	448	1
Future Volume (veh/h)	0	0	1	356	2	283	2	778	301	136	448	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	2	456	3	0	2	828	0	155	509	1
Peak Hour Factor	0.50	0.50	0.50	0.78	0.78	0.78	0.94	0.94	0.94	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	15	480	3		4	820		182	1005	2
Arrive On Green	0.00	0.00	0.01	0.27	0.27	0.00	0.00	0.44	0.00	0.10	0.54	0.54
Sat Flow, veh/h	0	0	1536	1770	12	1585	1781	1870	1585	1781	1866	4
Grp Volume(v), veh/h	0	0	2	459	0	0	2	828	0	155	0	510
Grp Sat Flow(s),veh/h/ln	0	0	1536	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.2	31.1	0.0	0.0	0.1	54.0	0.0	10.5	0.0	21.3
Cycle Q Clear(g_c), s	0.0	0.0	0.2	31.1	0.0	0.0	0.1	54.0	0.0	10.5	0.0	21.3
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	15	483	0		4	820		182	0	1007
V/C Ratio(X)	0.00	0.00	0.14	0.95	0.00		0.52	1.01		0.85	0.00	0.51
Avail Cap(c_a), veh/h	0	0	337	492	0		58	820		217	0	1007
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	60.5	44.1	0.0	0.0	61.4	34.6	0.0	54.4	0.0	18.0
Incr Delay (d2), s/veh	0.0	0.0	4.1	28.1	0.0	0.0	80.9	33.8	0.0	23.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.1	23.7	0.0	0.0	0.3	39.6	0.0	9.7	0.0	13.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	64.6	72.2	0.0	0.0	142.3	68.4	0.0	77.6	0.0	18.5
LnGrp LOS	A	A	E	E	A		F	F		E	A	B
Approach Vol, veh/h		2			459	A		830	A		665	
Approach Delay, s/veh		64.6			72.2			68.6			32.3	
Approach LOS		E			E			E			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.6	60.0		6.2	5.3	72.3		39.4				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	15.0	54.0		27.0	4.0	54.0		34.0				
Max Q Clear Time (g_c+I1), s	12.5	56.0		2.2	2.1	23.3		33.1				
Green Ext Time (p_c), s	0.1	0.0		0.0	0.0	3.1		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		57.1	
HCM 6th LOS		E	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	1	1	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	9.01	83150.0	53465.9	-86.0
Right Corner Quality of Service	E	A	A	F
Ped. Circulation Area (sq.ft)	0.2	8544.3	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	76.0	67.3	67.3	76.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.45	2.83	2.98
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	15	4	7
Total Flow Rate (veh/h)	2	822	1150	665
Effct. Green for Bike (s)	9.1	34.3	54.5	72.7
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	120	451	717	957
Bicycle Delay (s/bike)	67.2	45.9	31.3	20.8
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.71	4.06	3.24	2.01
Bicycle LOS	C	D	C	B

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	109	195	1274	926	34
Future Vol, veh/h	11	109	195	1274	926	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	117	210	1370	996	37

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2120	517	1033	0	-	0
Stage 1	1015	-	-	-	-	-
Stage 2	1105	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	43	503	668	-	-	-
Stage 1	311	-	-	-	-	-
Stage 2	279	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	29	503	668	-	-	-
Mov Cap-2 Maneuver	29	-	-	-	-	-
Stage 1	213	-	-	-	-	-
Stage 2	279	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	31.1	1.7	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	668	-	29	503	-	-
HCM Lane V/C Ratio	0.314	-	0.408	0.233	-	-
HCM Control Delay (s)	12.8	-	197.2	14.3	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	1.3	-	1.3	0.9	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	11923971.0	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	2200	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.98	
Delay for adq Gap	11923972.00	
Avg Ped Delay (s)	11923971.00	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	365.2	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	926	1274
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.98	0.98
Prob of Blocked Lane	0.87	0.87
Delay for adq Gap	213.54	157.89
Avg Ped Delay (s)	209.92	155.26

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	174	63	1479	133	41	1083
v/c Ratio	0.31	0.20	0.73	0.14	0.18	0.46
Control Delay	25.7	8.3	17.4	3.9	7.6	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.7	8.3	17.4	3.9	7.6	7.4
Queue Length 50th (ft)	33	0	230	2	4	77
Queue Length 95th (ft)	43	14	#602	38	24	251
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1383	664	2033	918	393	2766
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.09	0.73	0.14	0.10	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	118	43	1420	128	38	996
Future Volume (veh/h)	118	43	1420	128	38	996
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	174	63	1479	133	41	1083
Peak Hour Factor	0.68	0.68	0.96	0.96	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	340	156	2036	877	269	2525
Arrive On Green	0.10	0.10	0.57	0.57	0.03	0.71
Sat Flow, veh/h	3456	1585	3647	1531	1781	3647
Grp Volume(v), veh/h	174	63	1479	133	41	1083
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1531	1781	1777
Q Serve(g_s), s	2.8	2.1	17.5	2.3	0.5	7.3
Cycle Q Clear(g_c), s	2.8	2.1	17.5	2.3	0.5	7.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	340	156	2036	877	269	2525
V/C Ratio(X)	0.51	0.40	0.73	0.15	0.15	0.43
Avail Cap(c_a), veh/h	1620	743	2160	931	581	3024
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	24.4	9.0	5.7	7.6	3.5
Incr Delay (d2), s/veh	1.2	1.7	1.6	0.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	3.6	9.3	1.1	0.2	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.8	26.1	10.6	5.9	7.7	3.7
LnGrp LOS	C	C	B	A	A	A
Approach Vol, veh/h	237		1612			1124
Approach Delay, s/veh	25.9		10.2			3.8
Approach LOS	C		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		46.9		10.7	7.9	39.0
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		49.0		27.0	12.0	35.0
Max Q Clear Time (g_c+I1), s		9.3		4.8	2.5	19.5
Green Ext Time (p_c), s		17.1		1.0	0.0	13.5

Intersection Summary	
HCM 6th Ctrl Delay	9.0
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	48.6	72.1	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	7	0	5
Ped. Right-Left Flow Rate (p/h)	4	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	4524.3	6041.8	14580.0
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	F	-	F
Pedestrian Delay (s/p)	45.5	45.5	45.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	2.87	3.09
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	2	8	6
Total Flow Rate (veh/h)	237	1612	1124
Effct. Green for Bike (s)	11.5	39.8	46.5
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	253	875	1022
Bicycle Delay (s/bike)	34.8	14.5	10.9
Bicycle Compliance	Poor	Fair	Fair
Bicycle LOS Score	2.83	2.37	1.46
Bicycle LOS	C	B	A

Intersection	
Int Delay, s/veh	5.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	63	1491	57	44	1069
Future Vol, veh/h	26	63	1491	57	44	1069
Conflicting Peds, #/hr	0	0	0	19	19	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	76	76	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	83	1586	61	47	1137

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2299	843	0	0	1666	0
Stage 1	1636	-	-	-	-	-
Stage 2	663	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	46	264	-	-	184	-
Stage 1	99	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 33	259	-	-	181	-
Mov Cap-2 Maneuver	~ 33	-	-	-	-	-
Stage 1	97	-	-	-	-	-
Stage 2	340	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	119.6	0	1.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	33	259	181	-
HCM Lane V/C Ratio	-	-	1.037	0.32	0.259	-
HCM Control Delay (s)	-	-	$ 348.1	25.3	31.7	-
HCM Lane LOS	-	-	F	D	D	-
HCM 95th %tile Q(veh)	-	-	3.7	1.3	1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	3635.1	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	1491	1069
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	1.00	0.99
Prob of Blocked Lane	0.91	0.92
Delay for adq Gap	3087.34	553.45
Avg Ped Delay (s)	3084.94	550.19

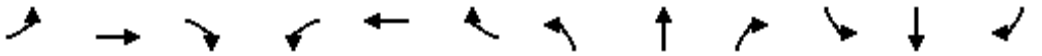
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	1037391104.0
Level of Service	F

Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2560
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.98
Delay for adq Gap	1037391104.00
Avg Ped Delay (s)	1037391104.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	33	93	72	34	148	1724	15	1134	23
v/c Ratio	0.11	0.19	0.23	0.07	0.37	0.51	0.06	0.75	0.03
Control Delay	21.9	1.1	23.8	0.3	10.5	11.9	9.7	25.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	1.1	23.8	0.3	10.5	11.9	9.7	25.4	0.1
Queue Length 50th (ft)	11	0	25	0	15	94	1	174	0
Queue Length 95th (ft)	30	0	52	0	70	367	12	#479	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	503	679	517	663	647	3326	383	1624	784
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.14	0.14	0.05	0.23	0.52	0.04	0.70	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	4	75	42	15	27	133	1494	58	14	1055	21
Future Volume (veh/h)	23	4	75	42	15	27	133	1494	58	14	1055	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		0.97	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	28	5	93	52	19	34	148	1660	64	15	1134	23
Peak Hour Factor	0.81	0.81	0.81	0.80	0.80	0.80	0.90	0.90	0.90	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	10	450	90	20	444	310	2359	91	182	1400	589
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.09	0.47	0.47	0.01	0.39	0.39
Sat Flow, veh/h	0	33	1555	0	68	1536	1781	5033	194	1781	3554	1496
Grp Volume(v), veh/h	33	0	93	71	0	34	148	1122	602	15	1134	23
Grp Sat Flow(s),veh/h/ln	33	0	1555	68	0	1536	1781	1702	1823	1781	1777	1496
Q Serve(g_s), s	0.0	0.0	3.1	0.0	0.0	1.1	3.1	18.1	18.1	0.3	19.6	0.7
Cycle Q Clear(g_c), s	20.0	0.0	3.1	20.0	0.0	1.1	3.1	18.1	18.1	0.3	19.6	0.7
Prop In Lane	0.85		1.00	0.73		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	106	0	450	110	0	444	310	1595	854	182	1400	589
V/C Ratio(X)	0.31	0.00	0.21	0.65	0.00	0.08	0.48	0.70	0.70	0.08	0.81	0.04
Avail Cap(c_a), veh/h	106	0	450	110	0	444	673	1595	854	420	1490	627
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.8	0.0	18.6	29.1	0.0	17.9	13.9	14.6	14.6	13.6	18.7	12.9
Incr Delay (d2), s/veh	2.3	0.0	0.3	13.8	0.0	0.1	2.4	1.7	3.1	0.1	3.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	0.0	2.0	2.9	0.0	0.7	2.1	9.9	11.0	0.2	12.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.1	0.0	18.9	42.9	0.0	18.0	16.4	16.3	17.7	13.8	22.5	13.0
LnGrp LOS	C	A	B	D	A	B	B	B	B	B	C	B
Approach Vol, veh/h		126			105			1872			1172	
Approach Delay, s/veh		22.1			34.8			16.7			22.2	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.9	33.2		25.0	5.8	38.4		25.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	20.0	29.0		20.0	10.0	29.0		20.0				
Max Q Clear Time (g_c+I1), s	5.1	21.6		22.0	2.3	20.1		22.0				
Green Ext Time (p_c), s	0.8	5.6		0.0	0.0	7.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		19.5	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.

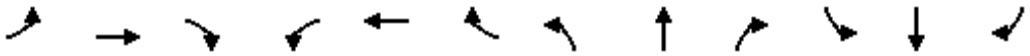
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	11	0	8
Ped. Right-Left Flow Rate (p/h)	1	12	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	196591.6	14365.2	25624.9	28061.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	6140.9	799.0	0.0	699.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	1.99	3.23	3.20
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	3	10	9
Total Flow Rate (veh/h)	126	105	1872	1172
Effct. Green for Bike (s)	15.3	15.3	45.6	29.2
Cross Street Width (ft)	80.0	80.0	36.0	40.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	360	360	1073	687
Bicycle Delay (s/bike)	28.6	28.6	9.2	18.4
Bicycle Compliance	Fair	Fair	Good	Fair
Bicycle LOS Score	2.99	2.96	3.14	2.07
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	73	193	466	344	325	127	1287	415	398	914
v/c Ratio	0.29	0.73	0.56	0.82	0.55	0.62	0.81	0.41	0.79	0.75
Control Delay	46.8	57.6	42.0	53.4	8.0	64.9	41.9	4.5	60.3	38.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	57.6	42.0	53.4	8.0	64.9	41.9	4.5	60.3	38.3
Queue Length 50th (ft)	49	122	156	223	0	92	320	28	148	305
Queue Length 95th (ft)	80	167	227	#422	84	#195	415	90	#239	423
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	369	381	834	419	594	204	1590	1001	506	1252
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.51	0.56	0.82	0.55	0.62	0.81	0.41	0.79	0.73

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	91	59	429	141	475	119	1210	390	378	826	43
Future Volume (veh/h)	57	91	59	429	141	475	119	1210	390	378	826	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.96	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	117	76	466	425	334	127	1287	415	398	869	45
Peak Hour Factor	0.78	0.78	0.78	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	274	159	103	866	455	368	214	1585	865	472	1120	58
Arrive On Green	0.15	0.15	0.15	0.24	0.24	0.24	0.12	0.31	0.31	0.14	0.33	0.33
Sat Flow, veh/h	1781	1032	671	3563	1870	1514	1781	5106	1547	3456	3430	178
Grp Volume(v), veh/h	73	0	193	466	425	334	127	1287	415	398	450	464
Grp Sat Flow(s),veh/h/ln	1781	0	1703	1781	1870	1514	1781	1702	1547	1728	1777	1831
Q Serve(g_s), s	4.2	0.0	12.4	13.1	25.6	24.7	7.8	26.7	18.8	12.9	26.3	26.3
Cycle Q Clear(g_c), s	4.2	0.0	12.4	13.1	25.6	24.7	7.8	26.7	18.8	12.9	26.3	26.3
Prop In Lane	1.00		0.39	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	274	0	262	866	455	368	214	1585	865	472	580	598
V/C Ratio(X)	0.27	0.00	0.74	0.54	0.94	0.91	0.59	0.81	0.48	0.84	0.78	0.78
Avail Cap(c_a), veh/h	372	0	355	867	455	368	214	1598	869	511	633	653
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	0.0	46.5	37.9	42.7	42.3	47.9	36.6	15.7	48.5	34.9	34.9
Incr Delay (d2), s/veh	0.4	0.0	4.3	1.9	28.2	27.8	3.0	4.7	1.9	15.3	9.8	9.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	0.0	9.4	9.7	21.2	17.3	6.4	16.8	16.4	10.6	18.2	18.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	0.0	50.8	39.8	70.9	70.0	51.0	41.2	17.6	63.8	44.7	44.4
LnGrp LOS	D	A	D	D	E	E	D	D	B	E	D	D
Approach Vol, veh/h		266			1225			1829			1312	
Approach Delay, s/veh		48.7			58.8			36.5			50.4	
Approach LOS		D			E			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.7	17.8	41.6		33.0	19.7	39.7				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	12.0	41.0		28.0	17.0	36.0				
Max Q Clear Time (g_c+I1), s		14.4	9.8	28.3		27.6	14.9	28.7				
Green Ext Time (p_c), s		0.8	0.0	9.3		0.3	0.8	7.0				

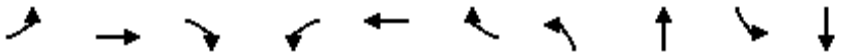
Intersection Summary												
HCM 6th Ctrl Delay			47.1									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	3	3	10
Ped. Right-Left Flow Rate (p/h)	5	1	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53572.2	24545.0	7429.8	21034.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1234.7	2379.2	2056.0	351.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	51.0	51.0	53.8	53.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.16	3.13	3.29	3.53
Pedestrian Crosswalk LOS	B	C	C	D

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	14	7	3
Total Flow Rate (veh/h)	266	1135	1829	1312
Effct. Green for Bike (s)	16.2	28.0	36.1	39.7
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	263	455	587	646
Bicycle Delay (s/bike)	46.5	36.9	30.8	28.2
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	3.27	4.63	2.27	2.69
Bicycle LOS	C	E	B	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	403	60	296	209	59	166	528	1247	169	1184
v/c Ratio	0.88	0.22	0.61	0.49	0.22	0.44	0.85	0.62	0.68	0.81
Control Delay	59.6	32.6	9.7	39.2	31.8	6.9	49.1	23.1	55.0	33.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.6	32.6	9.7	39.2	31.8	6.9	49.1	23.1	55.0	33.8
Queue Length 50th (ft)	101	28	0	50	28	0	129	167	42	188
Queue Length 95th (ft)	#257	63	62	103	58	35	#310	332	#120	#400
Internal Link Dist (ft)		461			455			697		1255
Turn Bay Length (ft)	240		240	300		200	300		200	
Base Capacity (vph)	456	314	508	1410	765	749	622	2016	249	1459
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.19	0.58	0.15	0.08	0.22	0.85	0.62	0.68	0.81

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	363	54	266	188	53	149	512	1152	57	154	920	157
Future Volume (veh/h)	363	54	266	188	53	149	512	1152	57	154	920	157
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	403	60	296	209	59	166	528	1188	59	169	1011	173
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	451	382	317	321	312	258	602	1907	95	243	1221	208
Arrive On Green	0.13	0.20	0.20	0.09	0.17	0.17	0.17	0.38	0.38	0.07	0.28	0.28
Sat Flow, veh/h	3456	1870	1550	3456	1870	1548	3456	4977	247	3456	4374	747
Grp Volume(v), veh/h	403	60	296	209	59	166	528	812	435	169	786	398
Grp Sat Flow(s),veh/h/ln	1728	1870	1550	1728	1870	1548	1728	1702	1820	1728	1702	1716
Q Serve(g_s), s	9.7	2.2	15.8	4.9	2.3	8.4	12.5	16.3	16.3	4.0	18.2	18.3
Cycle Q Clear(g_c), s	9.7	2.2	15.8	4.9	2.3	8.4	12.5	16.3	16.3	4.0	18.2	18.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.44
Lane Grp Cap(c), veh/h	451	382	317	321	312	258	602	1304	697	243	950	479
V/C Ratio(X)	0.89	0.16	0.93	0.65	0.19	0.64	0.88	0.62	0.62	0.70	0.83	0.83
Avail Cap(c_a), veh/h	451	382	317	1395	755	625	615	1333	713	246	970	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	27.5	33.0	36.9	30.2	32.8	33.9	21.1	21.1	38.3	28.5	28.5
Incr Delay (d2), s/veh	19.7	0.2	33.9	2.2	0.3	2.7	13.4	1.6	3.0	8.2	7.2	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.0	1.8	13.7	3.9	1.9	6.0	10.0	10.1	11.0	3.4	12.3	13.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.7	27.7	66.8	39.1	30.5	35.4	47.3	22.7	24.0	46.5	35.6	41.9
LnGrp LOS	E	C	E	D	C	D	D	C	C	D	D	D
Approach Vol, veh/h		759			434			1775			1353	
Approach Delay, s/veh		57.8			36.5			30.3			38.8	
Approach LOS		E			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.7	29.5	12.8	22.2	10.9	38.3	16.0	19.1
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	15.0	24.0	34.0	11.0	6.0	33.0	11.0	34.0
Max Q Clear Time (g_c+I1), s	14.5	20.3	6.9	17.8	6.0	18.3	11.7	10.4
Green Ext Time (p_c), s	0.1	3.1	1.0	0.0	0.0	11.1	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

Notes

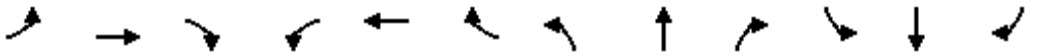
User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	100.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	6	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	0	5	0	0
Ped. Right-Left Flow Rate (p/h)	2	2	0	5
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	44945.1	7490.9	12818.0	12818.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	4317.3	1659.3	0.0	2253.3
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	43.9	43.9	52.5	43.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.75	2.59	3.34	3.32
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	3	3	3
Total Flow Rate (veh/h)	759	434	1775	1353
Effct. Green for Bike (s)	12.6	11.9	33.5	24.3
Cross Street Width (ft)	100.0	99.0	80.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	240	227	638	463
Bicycle Delay (s/bike)	40.7	41.3	24.4	31.1
Bicycle Compliance	Poor	Poor	Fair	Poor
Bicycle LOS Score	4.34	2.50	2.47	1.94
Bicycle LOS	D	C	B	B

Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	57	98	78	95	117	1959	40	1570	60
v/c Ratio	0.36	0.34	0.45	0.34	0.52	0.79	0.35	0.68	0.06
Control Delay	47.5	9.9	50.0	11.9	54.3	13.8	55.5	12.3	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.5	9.9	50.0	11.9	54.3	13.8	55.5	12.3	2.2
Queue Length 50th (ft)	35	0	48	0	38	419	25	270	1
Queue Length 95th (ft)	75	39	81	45	70	615	62	393	15
Internal Link Dist (ft)				233		1200		376	
Turn Bay Length (ft)	100	100			150		100		100
Base Capacity (vph)	474	654	519	644	227	2554	113	2558	1159
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.15	0.15	0.15	0.52	0.77	0.35	0.61	0.05

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	0	90	60	0	73	108	1730	53	36	1413	55
Future Volume (veh/h)	52	0	90	60	0	73	108	1730	53	36	1413	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	0	98	78	0	95	117	1901	58	40	1570	60
Peak Hour Factor	0.92	0.92	0.92	0.77	0.92	0.77	0.92	0.91	0.91	0.90	0.90	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	177	240	203	249	0	203	224	2310	70	76	2255	1000
Arrive On Green	0.13	0.00	0.13	0.13	0.00	0.13	0.06	0.66	0.66	0.04	0.63	0.63
Sat Flow, veh/h	1301	1870	1585	1297	0	1585	3456	3518	107	1781	3554	1576
Grp Volume(v), veh/h	57	0	98	78	0	95	117	954	1005	40	1570	60
Grp Sat Flow(s),veh/h/ln	1301	1870	1585	1297	0	1585	1728	1777	1847	1781	1777	1576
Q Serve(g_s), s	3.7	0.0	5.0	4.9	0.0	4.8	2.9	34.6	35.6	1.9	25.2	1.3
Cycle Q Clear(g_c), s	8.5	0.0	5.0	4.9	0.0	4.8	2.9	34.6	35.6	1.9	25.2	1.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	177	240	203	249	0	203	224	1167	1213	76	2255	1000
V/C Ratio(X)	0.32	0.00	0.48	0.31	0.00	0.47	0.52	0.82	0.83	0.53	0.70	0.06
Avail Cap(c_a), veh/h	535	755	640	605	0	638	250	1408	1464	125	2807	1245
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.1	0.0	35.2	35.2	0.0	35.2	39.4	11.1	11.2	40.8	10.4	6.0
Incr Delay (d2), s/veh	1.0	0.0	1.8	0.7	0.0	1.7	1.9	3.3	3.5	5.5	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	0.0	3.6	2.8	0.0	3.5	2.2	16.2	17.2	1.7	12.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.2	0.0	37.0	35.9	0.0	36.8	41.2	14.4	14.7	46.3	11.0	6.1
LnGrp LOS	D	A	D	D	A	D	D	B	B	D	B	A
Approach Vol, veh/h		155			173			2076			1670	
Approach Delay, s/veh		38.2			36.4			16.0			11.6	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	62.9		15.8	10.1	61.0		15.8				
Change Period (Y+Rc), s	4.5	5.8		* 4.7	4.5	5.8		* 4.7				
Max Green Setting (Gmax), s	6.1	68.9		* 35	6.3	68.7		* 35				
Max Q Clear Time (g_c+I1), s	3.9	37.6		10.5	4.9	27.2		6.9				
Green Ext Time (p_c), s	0.0	19.5		0.6	0.0	17.1		0.9				

Intersection Summary			
HCM 6th Ctrl Delay		15.9	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.5	36.0	72.8	83.6
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	62.5	62.5	62.5	62.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.24	2.04	3.41	3.38
Pedestrian Crosswalk LOS	B	B	C	C

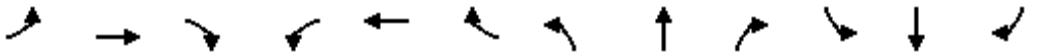
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	155	173	2076	1670
Effct. Green for Bike (s)	11.9	11.8	67.7	62.7
Cross Street Width (ft)	72.8	83.6	36.0	50.5
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	190	189	1083	1003
Bicycle Delay (s/bike)	51.2	51.3	13.1	15.5
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.93	3.12	3.82	3.71
Bicycle LOS	C	C	D	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	7	82	152	78	68	1897	49	40	1580	45
v/c Ratio	0.21	0.03	0.26	0.74	0.26	0.30	0.81	0.05	0.21	0.69	0.04
Control Delay	35.8	31.3	8.1	59.0	10.6	6.8	18.1	1.3	6.9	14.7	0.9
Queue Delay	0.0	0.0	0.2	1.0	0.0	0.0	47.6	0.0	0.0	0.1	0.0
Total Delay	35.8	31.3	8.3	60.1	10.6	6.8	65.7	1.3	6.9	14.9	0.9
Queue Length 50th (ft)	22	4	0	89	1	6	561	0	5	305	0
Queue Length 95th (ft)	43	14	25	130	31	m6	#784	m3	17	497	6
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	442	627	594	472	586	281	2353	1045	246	2286	1034
Starvation Cap Reductn	0	0	0	0	0	0	777	0	0	0	0
Spillback Cap Reductn	0	0	184	157	0	0	0	0	0	106	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.01	0.20	0.48	0.13	0.24	1.20	0.05	0.16	0.72	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	6	67	126	2	63	64	1783	46	38	1501	43
Future Volume (veh/h)	33	6	67	126	2	63	64	1783	46	38	1501	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	7	0	152	2	76	68	1897	49	40	1580	45
Peak Hour Factor	0.82	0.82	0.82	0.83	0.83	0.83	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	192	249		258	5	206	271	2361	1026	239	2327	1022
Arrive On Green	0.13	0.13	0.00	0.13	0.13	0.13	0.06	0.88	0.88	0.03	0.65	0.65
Sat Flow, veh/h	1321	1870	1585	1409	41	1550	1781	3554	1544	1781	3554	1560
Grp Volume(v), veh/h	40	7	0	152	0	78	68	1897	49	40	1580	45
Grp Sat Flow(s),veh/h/ln	1321	1870	1585	1409	0	1591	1781	1777	1544	1781	1777	1560
Q Serve(g_s), s	2.7	0.3	0.0	10.0	0.0	4.2	1.1	20.4	0.4	0.7	26.3	1.0
Cycle Q Clear(g_c), s	7.0	0.3	0.0	10.3	0.0	4.2	1.1	20.4	0.4	0.7	26.3	1.0
Prop In Lane	1.00		1.00	1.00		0.97	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	192	249		258	0	211	271	2361	1026	239	2327	1022
V/C Ratio(X)	0.21	0.03		0.59	0.00	0.37	0.25	0.80	0.05	0.17	0.68	0.04
Avail Cap(c_a), veh/h	462	630		546	0	536	362	2361	1026	347	2327	1022
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.44	0.44	0.44	0.71	0.71	0.71
Uniform Delay (d), s/veh	40.7	35.8	0.0	40.3	0.0	37.6	9.0	3.0	1.9	7.1	10.2	5.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.8	0.0	0.4	0.1	1.4	0.0	0.2	1.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.3	0.0	6.3	0.0	3.0	0.6	4.3	0.2	0.4	12.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.9	35.9	0.0	41.1	0.0	38.0	9.0	4.4	1.9	7.3	11.3	5.9
LnGrp LOS	D	D		D	A	D	A	A	A	A	B	A
Approach Vol, veh/h		47	A		230			2014			1665	
Approach Delay, s/veh		40.2			40.1			4.5			11.1	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	68.2		17.6	8.3	69.1		17.6				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	9.0	38.0		32.0	9.0	38.0		32.0				
Max Q Clear Time (g_c+I1), s	3.1	28.3		12.3	2.7	22.4		9.0				
Green Ext Time (p_c), s	0.0	9.2		0.3	0.0	15.2		0.0				

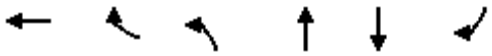
Intersection Summary			
HCM 6th Ctrl Delay		9.8	
HCM 6th LOS		A	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	39.8	39.8	39.8	39.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.49	2.11	3.51	3.37
Pedestrian Crosswalk LOS	B	B	D	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	4
Total Flow Rate (veh/h)	129	230	2014	1665
Effct. Green for Bike (s)	13.9	13.9	63.2	61.4
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	7.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	293	293	1331	1293
Bicycle Delay (s/bike)	34.6	34.6	5.3	6.0
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.09	3.32	2.26	0.94
Bicycle LOS	C	C	B	A

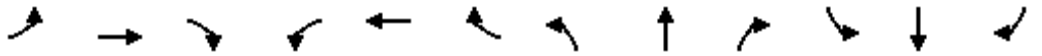


Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	311	415	106	1738	993	737
v/c Ratio	0.58	0.79	0.55	0.85	0.67	0.85
Control Delay	29.8	34.5	54.6	17.5	27.6	21.7
Queue Delay	0.0	0.1	0.0	48.1	1.7	1.1
Total Delay	29.8	34.6	54.6	65.6	29.4	22.9
Queue Length 50th (ft)	154	190	60	273	176	93
Queue Length 95th (ft)	191	246	m#116	#699	#347	#420
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	763	716	193	2053	1487	864
Starvation Cap Reductn	0	0	0	0	315	31
Spillback Cap Reductn	0	16	0	863	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.59	0.55	1.46	0.85	0.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



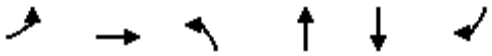
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	269	8	369	92	1512	0	0	914	678
Future Volume (veh/h)	0	0	0	269	8	369	92	1512	0	0	914	678
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				302	9	415	106	1738	0	0	993	737
Peak Hour Factor				0.89	0.89	0.89	0.87	0.87	0.87	0.92	0.92	0.92
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				526	16	481	123	2065	0	0	1653	672
Arrive On Green				0.32	0.32	0.32	0.07	0.58	0.00	0.00	0.93	0.93
Sat Flow, veh/h				1622	48	1485	1668	3647	0	0	3647	1445
Grp Volume(v), veh/h				311	0	415	106	1738	0	0	993	737
Grp Sat Flow(s),veh/h/ln				1671	0	1485	1668	1777	0	0	1777	1445
Q Serve(g_s), s				14.7	0.0	24.9	6.0	38.1	0.0	0.0	4.2	44.2
Cycle Q Clear(g_c), s				14.7	0.0	24.9	6.0	38.1	0.0	0.0	4.2	44.2
Prop In Lane				0.97		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				542	0	481	123	2065	0	0	1653	672
V/C Ratio(X)				0.57	0.00	0.86	0.86	0.84	0.00	0.00	0.60	1.10
Avail Cap(c_a), veh/h				774	0	688	123	2065	0	0	1653	672
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.76	0.76	0.00	0.00	0.68	0.68
Uniform Delay (d), s/veh				26.6	0.0	30.1	43.5	16.3	0.0	0.0	1.9	3.3
Incr Delay (d2), s/veh				1.0	0.0	7.8	34.9	3.4	0.0	0.0	1.1	58.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				9.8	0.0	14.7	6.3	19.1	0.0	0.0	1.7	17.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				27.6	0.0	38.0	78.5	19.7	0.0	0.0	3.0	62.0
LnGrp LOS				C	A	D	E	B	A	A	A	F
Approach Vol, veh/h					726			1844			1730	
Approach Delay, s/veh					33.5			23.1			28.1	
Approach LOS					C			C			C	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	11.0	49.2				60.2		34.8				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	7.0	31.0				42.0		44.0				
Max Q Clear Time (g_c+I1), s	8.0	46.2				40.1		26.9				
Green Ext Time (p_c), s	0.0	0.0				1.6		3.9				

Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	630.0	133.2	11000.7	581.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.3	2436.3	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.34	2.26	3.23	3.45
Pedestrian Crosswalk LOS	B	B	C	C

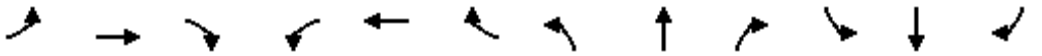
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	7
Total Flow Rate (veh/h)	0	726	1844	1730
Effct. Green for Bike (s)	0.0	30.9	55.1	39.9
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	651	1160	840
Bicycle Delay (s/bike)	0.0	21.6	8.4	16.0
Bicycle Compliance		Fair	Good	Fair
Bicycle LOS Score	0.00	2.74	2.45	2.10
Bicycle LOS		C	B	B



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	413	394	190	1041	961	387
v/c Ratio	0.90	0.75	0.62	0.49	0.73	0.35
Control Delay	56.2	30.5	44.4	12.0	21.5	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.2	30.5	44.4	12.0	21.5	2.5
Queue Length 50th (ft)	246	155	105	177	257	46
Queue Length 95th (ft)	#424	275	175	227	303	0
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	475	540	308	2121	1324	1127
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.73	0.62	0.49	0.73	0.34

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	593	0	149	0	0	0	182	999	0	0	836	337
Future Volume (veh/h)	593	0	149	0	0	0	182	999	0	0	836	337
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	404	338	162	0	0	0	190	1041	0	0	961	387
Peak Hour Factor	0.92	0.92	0.92	0.25	0.25	0.25	0.96	0.96	0.96	0.87	0.87	0.87
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	503	360	173	0	2	0	202	2108	0	0	1547	1076
Arrive On Green	0.30	0.30	0.30	0.00	0.00	0.00	0.12	0.59	0.00	0.00	0.44	0.44
Sat Flow, veh/h	1668	1195	573	0	1870	0	1668	3647	0	0	3647	1443
Grp Volume(v), veh/h	404	0	500	0	0	0	190	1041	0	0	961	387
Grp Sat Flow(s),veh/h/ln	1668	0	1767	0	1870	0	1668	1777	0	0	1777	1443
Q Serve(g_s), s	21.2	0.0	26.2	0.0	0.0	0.0	10.7	16.0	0.0	0.0	19.9	9.2
Cycle Q Clear(g_c), s	21.2	0.0	26.2	0.0	0.0	0.0	10.7	16.0	0.0	0.0	19.9	9.2
Prop In Lane	1.00		0.32	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	503	0	533	0	2	0	202	2108	0	0	1547	1076
V/C Ratio(X)	0.80	0.00	0.94	0.00	0.00	0.00	0.94	0.49	0.00	0.00	0.62	0.36
Avail Cap(c_a), veh/h	509	0	539	0	79	0	202	2108	0	0	1547	1076
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.69	0.69
Uniform Delay (d), s/veh	30.6	0.0	32.3	0.0	0.0	0.0	41.4	11.1	0.0	0.0	20.8	4.5
Incr Delay (d2), s/veh	9.0	0.0	24.3	0.0	0.0	0.0	46.7	0.8	0.0	0.0	1.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.6	0.0	20.7	0.0	0.0	0.0	11.1	9.4	0.0	0.0	11.5	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	0.0	56.6	0.0	0.0	0.0	88.1	11.9	0.0	0.0	22.1	5.1
LnGrp LOS	D	A	E	A	A	A	F	B	A	A	C	A
Approach Vol, veh/h		904			0			1231			1348	
Approach Delay, s/veh		49.0			0.0			23.7			17.2	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	15.0	47.4		32.6		62.4		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	11.5	33.0		29.0		48.0		4.0				
Max Q Clear Time (g_c+I1), s	12.7	21.9		28.2		18.0		0.0				
Green Ext Time (p_c), s	0.0	6.0		0.5		8.2		0.0				

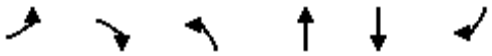
Intersection Summary												
HCM 6th Ctrl Delay			27.7									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	589815.0	7990.2	32375.7	589766.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	8363.4	1986.5	0.0	0.0
Crosswalk Circulation Code	A	A	-	-
Pedestrian Delay (s/p)	38.9	38.9	47.5	47.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.63	1.43	3.00	3.20
Pedestrian Crosswalk LOS	C	A	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	8
Total Flow Rate (veh/h)	807	0	1231	1348
Effct. Green for Bike (s)	28.1	4.3	56.9	35.6
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	592	91	1198	749
Bicycle Delay (s/bike)	23.6	43.3	7.7	18.6
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.96	1.39	2.36	2.44
Bicycle LOS	D	A	B	B

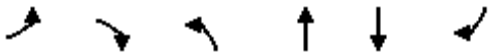


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	979	89	71	285	586	1072
v/c Ratio	0.88	0.15	0.24	0.29	0.82	0.97
Control Delay	41.0	11.2	9.9	10.4	32.4	32.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.0	11.2	9.9	10.4	32.4	32.8
Queue Length 50th (ft)	253	8	16	72	270	~350
Queue Length 95th (ft)	#503	50	31	107	404	#656
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		180	200			
Base Capacity (vph)	1108	593	339	1506	1202	1103
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.15	0.21	0.19	0.49	0.97

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	901	82	62	248	563	1029
Future Volume (veh/h)	901	82	62	248	563	1029
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	979	89	71	285	586	1072
Peak Hour Factor	0.92	0.92	0.87	0.87	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	888	424	240	1159	961	1199
Arrive On Green	0.26	0.26	0.04	0.62	0.51	0.51
Sat Flow, veh/h	3456	1648	1781	1870	1870	1540
Grp Volume(v), veh/h	979	89	71	285	586	1072
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1540
Q Serve(g_s), s	25.0	4.1	1.7	6.7	21.6	50.0
Cycle Q Clear(g_c), s	25.0	4.1	1.7	6.7	21.6	50.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	888	424	240	1159	961	1199
V/C Ratio(X)	1.10	0.21	0.30	0.25	0.61	0.89
Avail Cap(c_a), veh/h	888	424	345	1159	961	1199
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	28.4	12.7	8.3	16.7	8.3
Incr Delay (d2), s/veh	62.2	0.7	0.7	0.1	1.3	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	25.8	7.7	1.1	4.1	13.5	37.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	98.3	29.1	13.4	8.4	18.0	17.3
LnGrp LOS	F	C	B	A	B	B
Approach Vol, veh/h	1068			356	1658	
Approach Delay, s/veh	92.5			9.4	17.6	
Approach LOS	F			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		66.3		31.0	10.3	56.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		36.0		25.0	10.0	50.0
Max Q Clear Time (g_c+I1), s		8.7		27.0	3.7	52.0
Green Ext Time (p_c), s		1.9		0.0	0.1	0.0

Intersection Summary		
HCM 6th Ctrl Delay		42.6
HCM 6th LOS		D

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196586.8	0.0	196568.5
Right Corner Quality of Service	A	-	A
Ped. Circulation Area (sq.ft)	566.1	0.0	0.0
Crosswalk Circulation Code	A	-	-
Pedestrian Delay (s/p)	43.8	43.8	51.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.02	2.45	3.10
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	0	8	7
Total Flow Rate (veh/h)	1068	356	1658
Effct. Green for Bike (s)	26.1	42.2	31.2
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	507	819	606
Bicycle Delay (s/bike)	28.7	18.0	25.1
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	1.92	1.87	4.00
Bicycle LOS	B	B	D

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	98	988	221	0	1568
Future Vol, veh/h	0	98	988	221	0	1568
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	87	87	95	95	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	113	1040	233	0	1686

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	637	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	420	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	420	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.7	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	420	-
HCM Lane V/C Ratio	-	-	0.268	-
HCM Control Delay (s)	-	-	16.7	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1.1	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	1017104.1
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2556
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	1017105.50
Avg Ped Delay (s)	1017104.13

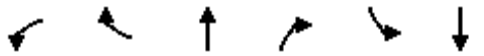
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	1017104.1
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2556
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	1017105.50
Avg Ped Delay (s)	1017104.13

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	720	1255	123	1399
v/c Ratio	0.79	0.63	0.72	0.69
Control Delay	28.0	11.8	40.6	13.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	28.0	11.8	40.6	13.2
Queue Length 50th (ft)	132	161	34	195
Queue Length 95th (ft)	186	271	#142	325
Internal Link Dist (ft)	742	269		1054
Turn Bay Length (ft)			170	
Base Capacity (vph)	1197	2044	176	2076
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.60	0.61	0.70	0.67

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	405	236	1044	148	112	1273
Future Volume (vph)	405	236	1044	148	112	1273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		6.0		6.0	6.0
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.94		0.98		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3275		3464		1770	3539
Flt Permitted	0.97		1.00		0.16	1.00
Satd. Flow (perm)	3275		3464		300	3539
Peak-hour factor, PHF	0.89	0.89	0.95	0.95	0.91	0.91
Adj. Flow (vph)	455	265	1099	156	123	1399
RTOR Reduction (vph)	52	0	14	0	0	0
Lane Group Flow (vph)	668	0	1241	0	123	1399
Confl. Peds. (#/hr)	1	6				
Confl. Bikes (#/hr)				3		
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	18.1		39.5		39.5	39.5
Effective Green, g (s)	18.1		39.5		39.5	39.5
Actuated g/C Ratio	0.26		0.58		0.58	0.58
Clearance Time (s)	5.0		6.0		6.0	6.0
Vehicle Extension (s)	2.0		5.5		5.5	5.5
Lane Grp Cap (vph)	864		1994		172	2037
v/s Ratio Prot	c0.20		0.36			0.40
v/s Ratio Perm					c0.41	
v/c Ratio	0.77		0.62		0.72	0.69
Uniform Delay, d1	23.4		9.6		10.5	10.2
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	4.0		1.0		17.3	1.4
Delay (s)	27.3		10.6		27.8	11.6
Level of Service	C		B		C	B
Approach Delay (s)	27.3		10.6			12.9
Approach LOS	C		B			B

Intersection Summary			
HCM 2000 Control Delay	15.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	68.6	Sum of lost time (s)	11.0
Intersection Capacity Utilization	73.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	0	0	5
Ped. Right-Left Flow Rate (p/h)	0	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	5368.8	32365.9	4623.2
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	17086.7	2191.0
Crosswalk Circulation Code	-	A	A
Pedestrian Delay (s/p)	29.9	27.3	29.9
Pedestrian Compliance Code	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.30	3.32	3.04
Pedestrian Crosswalk LOS	B	C	C

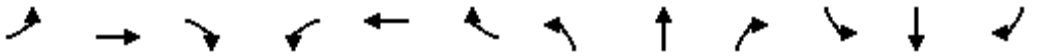
Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	7	7
Total Flow Rate (veh/h)	720	1255	1522
Effct. Green for Bike (s)	18.1	39.5	39.5
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	483	1053	1053
Bicycle Delay (s/bike)	21.6	8.4	8.4
Bicycle Compliance	Fair	Good	Good
Bicycle LOS Score	1.57	2.23	2.74
Bicycle LOS	B	B	C

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	53	30	456	449	683	26	844	599	451	962
v/c Ratio	0.36	0.14	0.83	0.81	0.82	0.29	0.84	0.56	1.31	0.60
Control Delay	67.7	1.4	56.3	54.8	21.5	75.8	54.8	6.6	203.4	33.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.7	1.4	56.3	54.8	21.5	75.8	54.8	6.6	203.4	33.2
Queue Length 50th (ft)	48	0	386	377	178	23	382	79	~557	366
Queue Length 95th (ft)	63	0	552	541	297	61	#587	144	#857	531
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		100	165	
Base Capacity (vph)	240	286	652	655	898	151	1098	1140	343	1613
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.10	0.70	0.69	0.76	0.17	0.77	0.53	1.31	0.60

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	20	19	719	23	560	25	802	569	392	792	45
Future Volume (veh/h)	13	20	19	719	23	560	25	802	569	392	792	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	32	30	897	0	0	26	844	599	451	910	52
Peak Hour Factor	0.63	0.63	0.63	0.82	0.82	0.82	0.95	0.95	0.95	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	56	77	995	0		43	1142	939	369	1720	98
Arrive On Green	0.05	0.05	0.05	0.28	0.00	0.00	0.02	0.32	0.32	0.21	0.50	0.50
Sat Flow, veh/h	727	1107	1505	3563	0	1585	1781	3554	1545	1781	3410	195
Grp Volume(v), veh/h	53	0	30	897	0	0	26	844	599	451	474	488
Grp Sat Flow(s),veh/h/ln	1834	0	1505	1781	0	1585	1781	1777	1545	1781	1777	1828
Q Serve(g_s), s	3.4	0.0	2.3	29.2	0.0	0.0	1.7	25.5	30.5	25.0	21.8	21.8
Cycle Q Clear(g_c), s	3.4	0.0	2.3	29.2	0.0	0.0	1.7	25.5	30.5	25.0	21.8	21.8
Prop In Lane	0.40		1.00	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	94	0	77	995	0		43	1142	939	369	896	922
V/C Ratio(X)	0.57	0.00	0.39	0.90	0.00		0.61	0.74	0.64	1.22	0.53	0.53
Avail Cap(c_a), veh/h	228	0	187	1477	0		162	1179	955	369	896	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.9	0.0	55.4	41.8	0.0	0.0	58.3	36.4	15.7	47.8	20.2	20.2
Incr Delay (d2), s/veh	2.0	0.0	1.2	4.2	0.0	0.0	5.0	3.0	2.0	121.6	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	0.0	1.6	18.8	0.0	0.0	1.5	16.7	25.6	34.5	13.7	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	0.0	56.6	46.0	0.0	0.0	63.3	39.5	17.7	169.4	21.3	21.3
LnGrp LOS	E	A	E	D	A		E	D	B	F	C	C
Approach Vol, veh/h		83			897	A		1469			1413	
Approach Delay, s/veh		57.4			46.0			31.0			68.6	
Approach LOS		E			D			C			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	28.5	43.2		10.7	6.4	65.3		38.2				
Change Period (Y+Rc), s	3.5	4.5		4.5	3.5	4.5		4.5				
Max Green Setting (Gmax), s	25.0	40.0		15.0	11.0	40.0		50.0				
Max Q Clear Time (g_c+I1), s	27.0	32.5		5.4	3.7	23.8		31.2				
Green Ext Time (p_c), s	0.0	6.3		0.1	0.0	9.2		2.5				

Intersection Summary			
HCM 6th Ctrl Delay		48.8	
HCM 6th LOS		D	

Notes

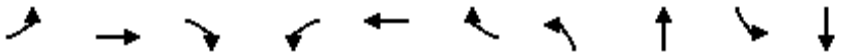
User approved pedestrian interval to be less than phase max green.

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	5
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	3	6	1
Ped. Right-Left Flow Rate (p/h)	1	6	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	1	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	58924.0	53567.3	36848.0	117930.1
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2262.6	0.0	1117.9	987.7
Crosswalk Circulation Code	A	F	A	A
Pedestrian Delay (s/p)	65.7	65.7	65.7	65.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.05	3.17	3.67	3.10
Pedestrian Crosswalk LOS	B	C	D	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	8	3	10
Total Flow Rate (veh/h)	83	1588	1469	1413
Effct. Green for Bike (s)	10.8	43.7	37.9	61.2
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	147	595	516	833
Bicycle Delay (s/bike)	63.1	36.4	40.5	25.2
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.74	5.19	2.46	2.40
Bicycle LOS	C	E	B	B

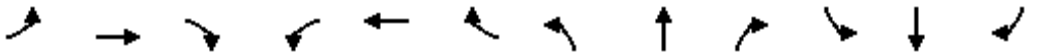


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	81	73	139	258	405	252	533	1068	135	886
v/c Ratio	0.64	0.22	0.28	0.95	0.78	0.41	0.89	0.92	0.81	1.00
Control Delay	65.1	30.0	1.4	82.1	40.1	5.5	53.8	42.0	74.3	64.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.1	30.0	1.4	82.1	40.1	5.5	53.8	42.0	74.3	64.5
Queue Length 50th (ft)	44	33	0	142	205	0	148	293	74	~276
Queue Length 95th (ft)	#86	57	0	#177	201	8	#252	#453	#181	#419
Internal Link Dist (ft)		1706			363			1325		863
Turn Bay Length (ft)	250			105		410	300		210	
Base Capacity (vph)	126	463	579	272	595	671	610	1162	167	885
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.16	0.24	0.95	0.68	0.38	0.87	0.92	0.81	1.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	55	104	168	263	164	480	869	92	128	779	63
Future Volume (veh/h)	61	55	104	168	263	164	480	869	92	128	779	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.96	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	81	73	139	258	405	252	533	966	102	135	820	66
Peak Hour Factor	0.75	0.75	0.75	0.65	0.65	0.65	0.90	0.90	0.90	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	104	280	236	284	469	396	611	1097	116	168	853	69
Arrive On Green	0.06	0.15	0.15	0.16	0.25	0.25	0.18	0.34	0.34	0.09	0.26	0.26
Sat Flow, veh/h	1781	1870	1579	1781	1870	1581	3456	3229	341	1781	3318	267
Grp Volume(v), veh/h	81	73	139	258	405	252	533	531	537	135	439	447
Grp Sat Flow(s),veh/h/ln	1781	1870	1579	1781	1870	1581	1728	1777	1793	1781	1777	1808
Q Serve(g_s), s	3.7	2.8	6.7	11.6	16.9	11.6	12.3	23.0	23.0	6.1	19.9	19.9
Cycle Q Clear(g_c), s	3.7	2.8	6.7	11.6	16.9	11.6	12.3	23.0	23.0	6.1	19.9	19.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.15
Lane Grp Cap(c), veh/h	104	280	236	284	469	396	611	604	609	168	457	465
V/C Ratio(X)	0.78	0.26	0.59	0.91	0.86	0.64	0.87	0.88	0.88	0.80	0.96	0.96
Avail Cap(c_a), veh/h	131	481	406	284	618	523	635	609	615	175	457	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	30.7	32.4	33.8	29.3	27.3	32.7	25.4	25.4	36.3	29.9	29.9
Incr Delay (d2), s/veh	20.4	0.2	0.9	31.1	7.9	0.6	12.1	14.2	14.1	21.8	32.3	32.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.8	2.2	4.5	11.6	12.8	7.5	9.8	16.7	16.8	6.3	17.6	17.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.3	30.9	33.2	64.9	37.2	27.9	44.8	39.5	39.5	58.0	62.2	61.9
LnGrp LOS	E	C	C	E	D	C	D	D	D	E	E	E
Approach Vol, veh/h		293			915			1601			1021	
Approach Delay, s/veh		39.6			42.4			41.3			61.5	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	33.7	17.0	18.2	19.4	27.0	8.8	26.5
Change Period (Y+Rc), s	5.0	6.0	4.0	* 6	5.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	8.0	28.0	13.0	* 21	15.0	21.0	6.0	27.0
Max Q Clear Time (g_c+I1), s	8.1	25.0	13.6	8.7	14.3	21.9	5.7	18.9
Green Ext Time (p_c), s	0.0	2.0	0.0	0.4	0.2	0.0	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	46.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	90.0	70.0	80.0	70.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	5	4	6	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	1	0	0	1
Ped. Right-Left Flow Rate (p/h)	2	3	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	17982.7	22456.7	17982.7	22489.2
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	5216.7	5114.0	7015.8	13673.0
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	34.7	34.7	34.7	34.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.73	2.57	3.13	3.01
Pedestrian Crosswalk LOS	C	C	C	C

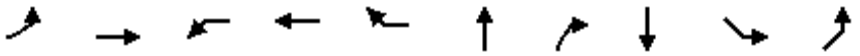
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	15	8
Total Flow Rate (veh/h)	293	915	1601	1021
Effct. Green for Bike (s)	15.5	23.7	28.1	21.3
Cross Street Width (ft)	80.0	80.0	62.0	75.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	344	527	624	473
Bicycle Delay (s/bike)	30.9	24.4	21.4	26.3
Bicycle Compliance	Poor	Fair	Fair	Fair
Bicycle LOS Score	1.98	3.01	2.54	2.26
Bicycle LOS	B	C	C	B

Intersection	
Intersection Delay, s/veh	23.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	537	18	0	6	137	9	0	15
Future Vol, veh/h	0	0	0	0	537	18	0	6	137	9	0	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	10	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	584	20	0	7	149	10	0	16
Number of Lanes	0	0	0	0	1	1	1	0	1	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	28	10	9.4
HCM LOS	D	A	A

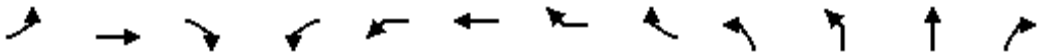
Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	0%	0%	38%
Vol Thru, %	100%	4%	100%	0%	0%
Vol Right, %	0%	96%	0%	100%	62%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	143	537	18	24
LT Vol	0	0	0	0	9
Through Vol	0	6	537	0	0
RT Vol	0	137	0	18	15
Lane Flow Rate	0	155	584	20	26
Geometry Grp	7	7	7	7	6
Degree of Util (X)	0	0.238	0.836	0.023	0.044
Departure Headway (Hd)	6.182	5.502	5.158	4.318	6.076
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	0	650	700	823	584
Service Time	3.942	3.263	2.917	2.077	4.164
HCM Lane V/C Ratio	0	0.238	0.834	0.024	0.045
HCM Control Delay	8.9	10	28.7	7.2	9.4
HCM Lane LOS	N	A	D	A	A
HCM 95th-tile Q	0	0.9	9.2	0.1	0.1



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	29	935	176	1189	552	41	80	232	20	20
v/c Ratio	0.31	0.79	0.83	0.70	0.68	0.13	0.16	0.73	0.14	0.06
Control Delay	52.4	34.1	70.7	26.1	21.8	27.7	0.6	44.4	44.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	34.1	70.7	26.1	21.8	27.7	0.6	44.4	44.9	0.3
Queue Length 50th (ft)	12	166	70	142	76	13	0	86	8	0
Queue Length 95th (ft)	#51	#479	#278	#650	#505	47	0	215	38	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	94	1179	212	1701	810	493	681	487	138	436
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.79	0.83	0.70	0.68	0.08	0.12	0.48	0.14	0.05

Intersection Summary

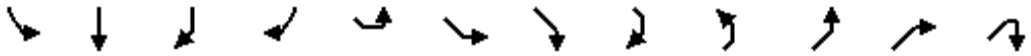
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	25	809	4	79	88	1130	271	254	8	21	6	68
Future Volume (vph)	25	809	4	79	88	1130	271	254	8	21	6	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00				1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.95				1.00	0.97
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85				1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00	1.00				0.96	1.00
Satd. Flow (prot)	1770	3536			1770	3539	1506				1783	1536
Flt Permitted	0.95	1.00			0.95	1.00	1.00				0.74	1.00
Satd. Flow (perm)	1770	3536			1770	3539	1506				1370	1536
Peak-hour factor, PHF	0.87	0.87	0.87	0.95	0.95	0.95	0.95	0.95	0.85	0.85	0.85	0.85
Adj. Flow (vph)	29	930	5	83	93	1189	285	267	9	25	7	80
RTOR Reduction (vph)	0	0	0	0	0	0	108	0	0	0	0	63
Lane Group Flow (vph)	29	935	0	0	176	1189	444	0	0	0	41	17
Confl. Peds. (#/hr)			4				1	1	2	2		12
Confl. Bikes (#/hr)			1				14	14				1
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	Perm	NA	Perm
Protected Phases	5	2		1	1	6					8	
Permitted Phases							6		8	8		8
Actuated Green, G (s)	1.2	30.6			9.5	37.9	37.9				18.5	18.5
Effective Green, g (s)	1.2	30.6			9.5	37.9	37.9				18.5	18.5
Actuated g/C Ratio	0.01	0.34			0.11	0.42	0.42				0.21	0.21
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0				3.5	3.5
Lane Grp Cap (vph)	23	1211			188	1501	639				283	318
v/s Ratio Prot	0.02	0.26			c0.10	c0.34						
v/s Ratio Perm							0.30				0.03	0.01
v/c Ratio	1.26	0.77			0.94	0.79	0.70				0.14	0.05
Uniform Delay, d1	44.0	26.2			39.6	22.3	21.0				28.9	28.4
Progression Factor	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Incremental Delay, d2	277.4	3.6			46.7	3.4	4.2				0.3	0.1
Delay (s)	321.5	29.9			86.3	25.7	25.2				29.2	28.5
Level of Service	F	C			F	C	C				C	C
Approach Delay (s)		38.7				31.1					28.7	
Approach LOS		D				C					C	

Intersection Summary			
HCM 2000 Control Delay	34.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	89.3	Sum of lost time (s)	27.0
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

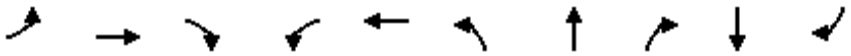


Movement	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	142	5	33	20	5	5	5	5	5	5	5	5
Future Volume (vph)	142	5	33	20	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0				5.0				5.0		
Lane Util. Factor		1.00				1.00				1.00		
Frpb, ped/bikes		1.00				1.00				1.00		
Flpb, ped/bikes		0.99				1.00				1.00		
Frt		0.96				0.93				0.93		
Flt Protected		0.97				0.98				0.98		
Satd. Flow (prot)		1714				1695				1695		
Flt Permitted		0.76				1.00				0.98		
Satd. Flow (perm)		1354				1737				1695		
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	165	6	38	23	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	0	232	0	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)	12		2	2								
Confl. Bikes (#/hr)												
Turn Type	Perm	NA			Perm	Prot			Perm	Prot		
Protected Phases		4				7				3		
Permitted Phases	4				7				3			
Actuated Green, G (s)		18.5				1.9				2.8		
Effective Green, g (s)		18.5				1.9				2.8		
Actuated g/C Ratio		0.21				0.02				0.03		
Clearance Time (s)		5.0				5.0				5.0		
Vehicle Extension (s)		3.5				2.0				1.5		
Lane Grp Cap (vph)		280				36				53		
v/s Ratio Prot												
v/s Ratio Perm		c0.17				c0.01				0.00		
v/c Ratio		0.83				0.56				0.01		
Uniform Delay, d1		33.9				43.3				41.9		
Progression Factor		1.00				1.00				1.00		
Incremental Delay, d2		18.4				10.1				0.0		
Delay (s)		52.3				53.4				41.9		
Level of Service		D				D				D		
Approach Delay (s)		52.3				53.4				41.9		
Approach LOS		D				D				D		

Intersection Summary

Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29673.7	11556.4	0.0	72900.0	24282.5
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2869.7	5032.2	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	42.1	42.1	42.1	42.1	42.1	42.1
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.96	3.45	2.02	1.98	1.86	1.79
Pedestrian Crosswalk LOS	C	C	B	B	B	B

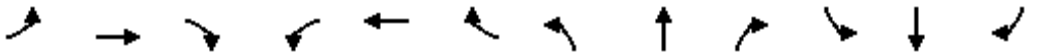
Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	964	1917	121	232	20	20
Effct. Green for Bike (s)	26.3	37.9	18.5	18.5	6.3	7.2
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	501	722	352	352	120	137
Bicycle Delay (s/bike)	29.6	21.6	35.9	35.7	46.4	45.5
Bicycle Compliance	Fair	Fair	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.85	2.24	2.86	2.31	2.62	2.20
Bicycle LOS	C	B	C	B	C	B



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	29	964	177	355	1530	110	111	305	51	29
v/c Ratio	0.34	0.72	0.27	0.85	0.60	0.53	0.53	0.50	0.24	0.10
Control Delay	56.0	29.6	9.3	59.4	20.7	47.1	47.1	6.3	36.7	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.0	29.6	9.3	59.4	20.7	47.1	47.1	6.3	36.7	0.6
Queue Length 50th (ft)	15	219	15	93	219	56	57	0	25	0
Queue Length 95th (ft)	#59	#503	82	#238	427	133	134	58	49	0
Internal Link Dist (ft)		217			575		1379		108	
Turn Bay Length (ft)	145		90	350		150				50
Base Capacity (vph)	86	1331	663	416	2554	612	615	616	647	651
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.72	0.27	0.85	0.60	0.18	0.18	0.50	0.08	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	868	159	309	1296	35	189	5	268	36	2	22
Future Volume (veh/h)	26	868	159	309	1296	35	189	5	268	36	2	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	964	177	355	1490	40	219	0	305	48	3	29
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.88	0.88	0.88	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	41	1232	538	402	2246	60	740	0	509	84	5	77
Arrive On Green	0.02	0.35	0.35	0.12	0.44	0.44	0.21	0.00	0.21	0.05	0.05	0.05
Sat Flow, veh/h	1781	3554	1552	3456	5107	137	3563	0	1562	1681	105	1550
Grp Volume(v), veh/h	29	964	177	355	993	537	219	0	305	51	0	29
Grp Sat Flow(s),veh/h/ln	1781	1777	1552	1728	1702	1840	1781	0	1562	1786	0	1550
Q Serve(g_s), s	1.4	20.9	7.2	8.7	19.8	19.8	4.5	0.0	14.1	2.4	0.0	1.6
Cycle Q Clear(g_c), s	1.4	20.9	7.2	8.7	19.8	19.8	4.5	0.0	14.1	2.4	0.0	1.6
Prop In Lane	1.00		1.00	1.00		0.07	1.00		1.00	0.94		1.00
Lane Grp Cap(c), veh/h	41	1232	538	402	1497	809	740	0	509	89	0	77
V/C Ratio(X)	0.70	0.78	0.33	0.88	0.66	0.66	0.30	0.00	0.60	0.57	0.00	0.37
Avail Cap(c_a), veh/h	83	1282	560	402	1497	809	1244	0	730	624	0	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.7	25.2	20.7	37.4	19.0	19.0	28.7	0.0	24.4	39.9	0.0	39.5
Incr Delay (d2), s/veh	10.9	5.0	1.6	19.5	2.3	4.3	0.2	0.0	0.8	3.5	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	13.7	4.8	8.1	12.0	13.4	3.3	0.0	8.6	2.0	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.5	30.2	22.3	56.8	21.4	23.3	28.9	0.0	25.2	43.4	0.0	41.3
LnGrp LOS	D	C	C	E	C	C	C	A	C	D	A	D
Approach Vol, veh/h		1170			1885			524			80	
Approach Delay, s/veh		29.5			28.6			26.8			42.6	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	35.8		10.3	8.0	43.8		23.8				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	10.0	31.0		30.0	4.0	37.0		30.0				
Max Q Clear Time (g_c+I1), s	10.7	22.9		4.4	3.4	21.8		16.1				
Green Ext Time (p_c), s	0.0	6.9		0.3	0.0	13.9		1.6				

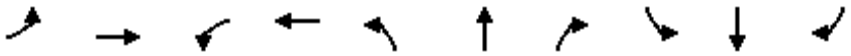
Intersection Summary			
HCM 6th Ctrl Delay		28.9	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	105.0	120.0	90.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	8	5	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	1	0	1	1
Ped. Right-Left Flow Rate (p/h)	0	0	1	2
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	40	25
Right Corner Area per Ped (sq.ft)	29978.3	29978.3	44967.5	22451.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	11702.5	0.0	5433.8	3401.6
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	52.0	52.0	52.0	52.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.25	3.28	2.64	2.00
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	10	15	4	3
Total Flow Rate (veh/h)	1170	1885	526	80
Effct. Green for Bike (s)	31.9	42.8	10.5	10.2
Cross Street Width (ft)	80.0	55.0	97.0	100.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	510	685	168	163
Bicycle Delay (s/bike)	34.8	27.2	52.5	52.8
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.25	2.15	2.63	1.94
Bicycle LOS	B	B	C	B

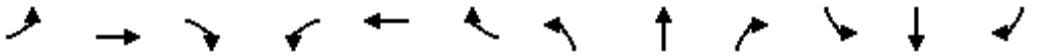


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	39	1428	224	1214	408	407	330	23	24	25
v/c Ratio	0.56	0.91	0.82	0.51	0.89	0.88	0.37	0.16	0.17	0.10
Control Delay	76.9	43.1	67.0	10.7	58.9	57.7	3.8	42.9	43.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.9	43.1	67.0	10.7	58.9	57.7	3.8	42.9	43.2	0.7
Queue Length 50th (ft)	25	321	131	75	262	261	6	14	15	0
Queue Length 95th (ft)	#74	#424	m184	m138	#513	#511	51	29	30	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	70	1563	295	2393	459	462	905	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.91	0.76	0.51	0.89	0.88	0.36	0.09	0.09	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	37	1214	156	215	1144	21	674	27	284	19	15	18
Future Volume (veh/h)	37	1214	156	215	1144	21	674	27	284	19	15	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	39	1265	162	224	1192	22	806	0	330	24	24	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.86	0.86	0.86	0.72	0.72	0.72
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	49	2052	263	251	2953	54	667	0	519	71	70	62
Arrive On Green	0.03	0.45	0.45	0.30	1.00	1.00	0.20	0.00	0.20	0.04	0.04	0.04
Sat Flow, veh/h	1781	4563	584	1668	5159	95	3337	0	1478	1781	1752	1549
Grp Volume(v), veh/h	39	944	483	224	786	428	806	0	330	24	24	25
Grp Sat Flow(s),veh/h/ln	1781	1702	1744	1668	1702	1850	1668	0	1478	1781	1752	1549
Q Serve(g_s), s	2.2	21.1	21.1	12.8	0.0	0.0	20.0	0.0	18.7	1.3	1.3	1.6
Cycle Q Clear(g_c), s	2.2	21.1	21.1	12.8	0.0	0.0	20.0	0.0	18.7	1.3	1.3	1.6
Prop In Lane	1.00		0.34	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	49	1530	784	251	1949	1059	667	0	519	71	70	62
V/C Ratio(X)	0.79	0.62	0.62	0.89	0.40	0.40	1.21	0.00	0.64	0.34	0.34	0.40
Avail Cap(c_a), veh/h	71	1530	784	300	1949	1059	667	0	519	285	280	248
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.79	0.79	0.79	0.42	0.42	0.42	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	21.0	21.0	34.2	0.0	0.0	40.0	0.0	27.2	46.7	46.7	46.8
Incr Delay (d2), s/veh	25.2	1.5	2.9	12.0	0.3	0.5	107.2	0.0	2.6	2.8	2.9	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.3	12.5	13.1	7.5	0.1	0.3	27.4	0.0	11.1	1.1	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	22.4	23.8	46.2	0.3	0.5	147.2	0.0	29.7	49.5	49.6	51.0
LnGrp LOS	E	C	C	D	A	A	F	A	C	D	D	D
Approach Vol, veh/h		1466			1438			1136			73	
Approach Delay, s/veh		24.3			7.5			113.1			50.0	
Approach LOS		C			A			F			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.0	49.0		8.0	6.8	61.2		24.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	18.0	30.0		16.0	4.0	44.0		20.0				
Max Q Clear Time (g_c+I1), s	14.8	23.1		3.6	4.2	2.0		22.0				
Green Ext Time (p_c), s	0.2	4.8		0.2	0.0	10.8		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			43.4									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	88.4	95.5	49.4	54.8
Crosswalk Width (ft)	10.0	10.0	10.0	10.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	11.0	11.0	10.0	15.0
Right Corner Size B (ft)	10.0	11.0	11.0	14.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	110.00	121.00	110.00	210.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	0
Ped. Right-Left Flow Rate (p/h)	1	0	3	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	3
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	12355.6	0.0	19768.9	31482.7
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	3316.1	0.0	1593.1	0.0
Crosswalk Circulation Code	A	-	A	-
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.17	3.11	2.87	2.19
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	8	9	1	5
Total Flow Rate (veh/h)	1466	1438	1145	72
Effct. Green for Bike (s)	31.4	47.2	29.5	8.4
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	628	944	590	168
Bicycle Delay (s/bike)	23.6	14.0	24.9	42.1
Bicycle Compliance	Fair	Fair	Fair	Poor
Bicycle LOS Score	2.07	2.06	3.78	2.99
Bicycle LOS	B	B	D	C

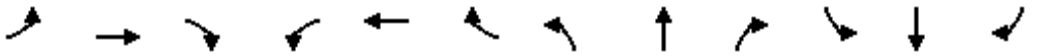
Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	659	966	1549	212	147
v/c Ratio	1.29	0.38	0.87	0.64	0.38
Control Delay	170.7	9.1	29.3	44.4	11.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	170.7	9.1	29.3	44.4	11.0
Queue Length 50th (ft)	~262	123	411	128	15
Queue Length 95th (ft)	m#322	m168	#765	166	55
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	509	2544	1777	557	570
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.29	0.38	0.87	0.38	0.26

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	613	898	0	0	1197	228	201	0	140	0	0	0
Future Volume (veh/h)	613	898	0	0	1197	228	201	0	140	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	659	966	0	0	1301	248	212	0	147			
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.95	0.95	0.95			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1093	2693	0	0	1130	213	271	0	237			
Arrive On Green	0.68	1.00	0.00	0.00	0.38	0.38	0.16	0.00	0.16			
Sat Flow, veh/h	3237	3647	0	0	3067	560	1668	0	1462			
Grp Volume(v), veh/h	659	966	0	0	771	778	212	0	147			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1757	1668	0	1462			
Q Serve(g_s), s	11.1	0.0	0.0	0.0	38.0	38.0	12.2	0.0	9.4			
Cycle Q Clear(g_c), s	11.1	0.0	0.0	0.0	38.0	38.0	12.2	0.0	9.4			
Prop In Lane	1.00		0.00	0.00		0.32	1.00		1.00			
Lane Grp Cap(c), veh/h	1093	2693	0	0	675	668	271	0	237			
V/C Ratio(X)	0.60	0.36	0.00	0.00	1.14	1.17	0.78	0.00	0.62			
Avail Cap(c_a), veh/h	1093	2693	0	0	675	668	567	0	497			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.49	0.49	0.00	0.00	0.75	0.75	1.00	0.00	1.00			
Uniform Delay (d), s/veh	12.5	0.0	0.0	0.0	31.0	31.0	40.2	0.0	39.0			
Incr Delay (d2), s/veh	0.5	0.2	0.0	0.0	76.9	86.9	4.9	0.0	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	4.7	0.1	0.0	0.0	41.1	43.6	9.1	0.0	6.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	0.2	0.0	0.0	107.9	117.9	45.1	0.0	41.7			
LnGrp LOS	B	A	A	A	F	F	D	A	D			
Approach Vol, veh/h		1625			1549			359				
Approach Delay, s/veh		5.4			113.0			43.7				
Approach LOS		A			F			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		79.8			37.8	42.0		20.2				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			16.0	38.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			13.1	40.0		14.2				
Green Ext Time (p_c), s		8.9			1.0	0.0		1.8				
Intersection Summary												
HCM 6th Ctrl Delay			56.4									
HCM 6th LOS			E									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	73.5	41.5	30.4
Crosswalk Width (ft)	10.0	11.0	10.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	8.0	9.0	19.0	0.1
Right Corner Size B (ft)	9.0	10.0	19.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	72.00	90.00	361.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	2	0
Ped. Right-Left Flow Rate (p/h)	0	1	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21565.5	40474.1	81212.1	-53.5
Right Corner Quality of Service	A	A	A	F
Ped. Circulation Area (sq.ft)	0.0	7459.0	2974.4	0.3
Crosswalk Circulation Code	-	A	A	F
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.06	2.92	2.01	2.17
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	11	1	1
Total Flow Rate (veh/h)	1625	1549	359	0
Effct. Green for Bike (s)	71.9	51.9	20.1	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1438	1038	402	0
Bicycle Delay (s/bike)	4.0	11.6	31.9	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.46	2.32	2.32	0.00
Bicycle LOS	B	B	B	

Intersection	
Intersection Delay, s/veh	3.4
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	2
Conflicting Circle Lanes	2	2	2
Adj Approach Flow, veh/h	115	126	137
Demand Flow Rate, veh/h	117	129	139
Vehicles Circulating, veh/h	16	110	30
Vehicles Exiting, veh/h	153	23	209
Ped Vol Crossing Leg, #/h	5	0	0
Ped Cap Adj	0.999	1.000	1.000
Approach Delay, s/veh	3.3	3.7	3.3
Approach LOS	A	A	A

Lane	Left	Left	Left	Right
Designated Moves	LT	TR	L	TR
Assumed Moves	LT	TR	L	TR
RT Channelized				
Lane Util	1.000	1.000	0.115	0.885
Follow-Up Headway, s	2.535	2.535	2.667	2.535
Critical Headway, s	4.328	4.328	4.645	4.328
Entry Flow, veh/h	117	129	16	123
Cap Entry Lane, veh/h	1401	1293	1313	1384
Entry HV Adj Factor	0.982	0.980	1.000	0.984
Flow Entry, veh/h	115	126	16	121
Cap Entry, veh/h	1374	1267	1313	1362
V/C Ratio	0.084	0.100	0.012	0.089
Control Delay, s/veh	3.3	3.7	2.8	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Intersection	
Intersection Delay, s/veh	3.7
Intersection LOS	A

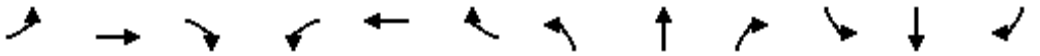
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	33	177	135	17
Demand Flow Rate, veh/h	33	181	138	17
Vehicles Circulating, veh/h	157	15	35	178
Vehicles Exiting, veh/h	38	157	155	18
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.3	3.8	3.6	3.3
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	33	181	138	17
Cap Entry Lane, veh/h	1176	1359	1331	1151
Entry HV Adj Factor	0.986	0.980	0.978	0.994
Flow Entry, veh/h	33	177	135	17
Cap Entry, veh/h	1160	1332	1302	1144
V/C Ratio	0.028	0.133	0.104	0.015
Control Delay, s/veh	3.3	3.8	3.6	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Lane Group	EBT	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1	241	126	317	588	443	681
v/c Ratio	0.00	0.76	0.08	0.68	0.71	0.76	0.57
Control Delay	0.0	50.5	0.1	34.9	7.9	35.7	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	50.5	0.1	34.9	7.9	35.7	10.5
Queue Length 50th (ft)	0	111	0	135	0	185	149
Queue Length 95th (ft)	0	#281	0	253	90	#430	333
Internal Link Dist (ft)	160	615		469			438
Turn Bay Length (ft)			180		370	490	
Base Capacity (vph)	671	316	1583	616	900	585	1222
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.76	0.08	0.51	0.65	0.76	0.56

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	220	2	116	0	292	541	408	626	1
Future Volume (veh/h)	0	0	1	220	2	116	0	292	541	408	626	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	1	239	2	0	0	317	0	443	680	1
Peak Hour Factor	0.25	0.25	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	2	292	2		3	396		508	1071	2
Arrive On Green	0.00	0.00	0.00	0.17	0.17	0.00	0.00	0.21	0.00	0.29	0.57	0.57
Sat Flow, veh/h	0	0	1585	1767	15	1585	1781	1870	1585	1781	1867	3
Grp Volume(v), veh/h	0	0	1	241	0	0	0	317	0	443	0	681
Grp Sat Flow(s),veh/h/ln	0	0	1585	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.0	8.5	0.0	0.0	0.0	10.5	0.0	15.5	0.0	16.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	8.5	0.0	0.0	0.0	10.5	0.0	15.5	0.0	16.0
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	2	294	0		3	396		508	0	1073
V/C Ratio(X)	0.00	0.00	0.41	0.82	0.00		0.00	0.80		0.87	0.00	0.63
Avail Cap(c_a), veh/h	0	0	655	382	0		109	745		709	0	1374
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	32.6	26.3	0.0	0.0	0.0	24.4	0.0	22.2	0.0	9.3
Incr Delay (d2), s/veh	0.0	0.0	85.0	10.4	0.0	0.0	0.0	3.8	0.0	8.7	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.1	7.3	0.0	0.0	0.0	7.9	0.0	10.8	0.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	117.6	36.7	0.0	0.0	0.0	28.2	0.0	30.9	0.0	10.0
LnGrp LOS	A	A	F	D	A		A	C		C	A	A
Approach Vol, veh/h		1			241	A		317	A		1124	
Approach Delay, s/veh		117.6			36.7			28.2			18.2	
Approach LOS		F			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.6	19.8		5.1	0.0	43.5		16.8				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	26.0	26.0		27.0	4.0	48.0		14.0				
Max Q Clear Time (g_c+I1), s	17.5	12.5		2.0	0.0	18.0		10.5				
Green Ext Time (p_c), s	1.2	1.3		0.0	0.0	4.6		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		22.8	
HCM 6th LOS		C	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.5	48.9	48.9	57.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.74	2.47	2.73	2.81
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	14	8
Total Flow Rate (veh/h)	1	367	905	1124
Effct. Green for Bike (s)	5.5	14.1	20.0	51.3
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	96	245	348	892
Bicycle Delay (s/bike)	52.2	44.3	39.5	17.7
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.71	3.31	2.84	2.77
Bicycle LOS	C	C	C	C

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	166	47	611	1049	7
Future Vol, veh/h	21	166	47	611	1049	7
Conflicting Peds, #/hr	1	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	180	51	664	1140	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1581	576	1150	0	-	0
Stage 1	1146	-	-	-	-	-
Stage 2	435	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	100	460	603	-	-	-
Stage 1	265	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	91	459	602	-	-	-
Mov Cap-2 Maneuver	91	-	-	-	-	-
Stage 1	242	-	-	-	-	-
Stage 2	619	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.2	0.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	602	-	91	459	-	-
HCM Lane V/C Ratio	0.085	-	0.251	0.393	-	-
HCM Control Delay (s)	11.5	-	57.3	17.8	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.9	1.8	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	326781.2	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	1660	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.95	
Delay for adq Gap	326783.34	
Avg Ped Delay (s)	326781.19	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	353.8	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	1049	611
Ped Vol Crossed	1	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.99	0.86
Prob of Blocked Lane	0.90	0.63
Delay for adq Gap	332.50	28.53
Avg Ped Delay (s)	329.23	24.53

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	296	102	591	376	101	1220
v/c Ratio	0.25	0.18	0.45	0.48	0.28	0.71
Control Delay	16.2	4.5	20.7	4.8	13.5	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	4.5	20.7	4.8	13.5	17.9
Queue Length 50th (ft)	46	0	116	0	25	231
Queue Length 95th (ft)	72	28	164	57	52	307
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1515	702	1315	776	364	1885
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.15	0.45	0.48	0.28	0.65

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	272	94	544	346	93	1122
Future Volume (veh/h)	272	94	544	346	93	1122
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.93	0.99	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	296	102	591	376	101	1220
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	552	253	1495	622	438	2164
Arrive On Green	0.16	0.16	0.42	0.42	0.06	0.61
Sat Flow, veh/h	3456	1585	3647	1478	1781	3647
Grp Volume(v), veh/h	296	102	591	376	101	1220
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1478	1781	1777
Q Serve(g_s), s	3.7	2.7	5.5	9.4	1.4	9.7
Cycle Q Clear(g_c), s	3.7	2.7	5.5	9.4	1.4	9.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	552	253	1495	622	438	2164
V/C Ratio(X)	0.54	0.40	0.40	0.60	0.23	0.56
Avail Cap(c_a), veh/h	2107	966	1793	746	515	2615
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	17.9	9.6	10.7	6.4	5.5
Incr Delay (d2), s/veh	0.8	1.0	0.4	2.1	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	4.6	3.2	5.0	0.5	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.2	19.0	10.0	12.8	6.5	6.0
LnGrp LOS	B	B	A	B	A	A
Approach Vol, veh/h	398		967			1321
Approach Delay, s/veh	19.1		11.1			6.0
Approach LOS	B		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.0		12.6	8.9	26.0
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		35.0		29.0	5.0	24.0
Max Q Clear Time (g_c+I1), s		11.7		5.7	3.4	11.4
Green Ext Time (p_c), s		14.5		1.9	0.0	7.8

Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	65.0	80.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None	Actuated
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	8.0	0.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	7.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	26	0	4
Ped. Right-Left Flow Rate (p/h)	3	0	81
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	5171.5	20304.9	6903.4
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	528.3	0.0	184.4
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	29.9	37.5	29.9
Pedestrian Compliance Code	Fair	Poor	Fair
Pedestrian Crosswalk Score	2.30	2.79	2.88
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	17	6
Total Flow Rate (veh/h)	398	967	1321
Effct. Green for Bike (s)	23.6	25.6	33.6
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	629	683	896
Bicycle Delay (s/bike)	17.6	16.4	11.5
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	2.96	1.84	1.62
Bicycle LOS	C	B	B

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	51	836	89	105	1341
Future Vol, veh/h	21	51	836	89	105	1341
Conflicting Peds, #/hr	0	0	0	22	22	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	55	909	97	114	1458

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1937	525	0	0	1028	0
Stage 1	980	-	-	-	-	-
Stage 2	957	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	76	426	-	-	379	-
Stage 1	254	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	52	417	-	-	371	-
Mov Cap-2 Maneuver	52	-	-	-	-	-
Stage 1	249	-	-	-	-	-
Stage 2	225	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	45.7	0	1.4
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	52	417	371	-
HCM Lane V/C Ratio	-	-	0.439	0.133	0.308	-
HCM Control Delay (s)	-	-	120.1	15	19	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	1.6	0.5	1.3	-

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	1876.7	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	836	1341
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	0.98	1.00
Prob of Blocked Lane	0.74	0.96
Delay for adq Gap	220.85	1662.52
Avg Ped Delay (s)	216.86	1659.86

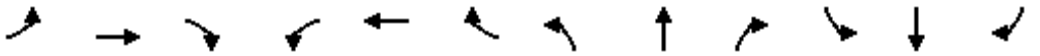
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	57491736.0
Level of Service	F

Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2177
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	57491736.00
Avg Ped Delay (s)	57491736.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	58	122	102	7	47	993	17	1445	22
v/c Ratio	0.16	0.25	0.28	0.01	0.24	0.32	0.05	0.82	0.03
Control Delay	20.4	7.3	22.6	0.0	12.3	12.3	10.1	25.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	7.3	22.6	0.0	12.3	12.3	10.1	25.8	0.1
Queue Length 50th (ft)	21	7	38	0	11	109	4	393	0
Queue Length 95th (ft)	47	42	75	0	27	170	13	#555	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	597	717	571	698	196	3083	335	1755	796
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.17	0.18	0.01	0.24	0.32	0.05	0.82	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	16	112	78	16	6	43	884	29	16	1329	20
Future Volume (veh/h)	38	16	112	78	16	6	43	884	29	16	1329	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.95	0.98		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	17	122	85	17	7	47	961	32	17	1445	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	18	530	78	9	538	172	2266	75	285	1463	625
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.05	0.45	0.45	0.01	0.41	0.41
Sat Flow, veh/h	0	52	1502	0	25	1524	1781	5068	169	1781	3554	1517
Grp Volume(v), veh/h	58	0	122	102	0	7	47	645	348	17	1445	22
Grp Sat Flow(s),veh/h/ln	52	0	1502	25	0	1524	1781	1702	1832	1781	1777	1517
Q Serve(g_s), s	0.0	0.0	4.9	0.0	0.0	0.3	1.2	11.0	11.0	0.5	34.3	0.7
Cycle Q Clear(g_c), s	30.0	0.0	4.9	30.0	0.0	0.3	1.2	11.0	11.0	0.5	34.3	0.7
Prop In Lane	0.71		1.00	0.83		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	91	0	530	86	0	538	172	1522	819	285	1463	625
V/C Ratio(X)	0.64	0.00	0.23	1.18	0.00	0.01	0.27	0.42	0.42	0.06	0.99	0.04
Avail Cap(c_a), veh/h	91	0	530	86	0	538	172	1522	819	327	1463	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	0.0	19.4	39.5	0.0	17.9	20.0	16.0	16.0	14.7	24.8	14.9
Incr Delay (d2), s/veh	16.0	0.0	0.3	153.1	0.0	0.0	1.8	0.3	0.6	0.1	20.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.0	3.1	9.9	0.0	0.2	1.0	6.9	7.6	0.3	23.4	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	0.0	19.7	192.6	0.0	17.9	21.8	16.4	16.7	14.7	45.4	15.0
LnGrp LOS	D	A	B	F	A	B	C	B	B	B	D	B
Approach Vol, veh/h		180			109			1040			1484	
Approach Delay, s/veh		29.2			181.4			16.7			44.6	
Approach LOS		C			F			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	41.0		35.0	6.0	44.0		35.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	4.0	35.0		30.0	3.0	36.0		30.0				
Max Q Clear Time (g_c+I1), s	3.2	36.3		32.0	2.5	13.0		32.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	10.5		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			38.6									
HCM 6th LOS			D									

Notes

User approved pedestrian interval to be less than phase max green.

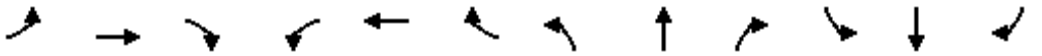
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	4	12	0	8
Ped. Right-Left Flow Rate (p/h)	4	2	0	37
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73706.7	9989.4	42095.1	11094.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2301.5	1312.9	0.0	278.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	1.98	3.12	3.12
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	180	109	1040	1484
Effct. Green for Bike (s)	19.7	19.8	45.1	36.6
Cross Street Width (ft)	84.5	96.0	36.1	37.9
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	464	466	1061	861
Bicycle Delay (s/bike)	25.1	25.0	9.4	13.8
Bicycle Compliance	Fair	Fair	Good	Fair
Bicycle LOS Score	3.15	3.21	2.68	2.29
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	118	188	191	216	206	50	530	165	667	1124
v/c Ratio	0.40	0.60	0.48	0.85	0.59	0.56	0.45	0.26	0.77	0.70
Control Delay	32.8	34.8	38.7	52.1	13.6	63.5	27.8	4.4	36.1	21.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	34.8	38.7	52.1	13.6	63.5	27.8	4.4	36.1	21.5
Queue Length 50th (ft)	53	77	45	65	0	24	79	0	156	223
Queue Length 95th (ft)	98	138	89	#223	69	#87	130	40	#295	380
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	546	561	397	255	347	90	1307	627	866	1605
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.34	0.48	0.85	0.59	0.56	0.41	0.26	0.77	0.70

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	127	46	176	67	321	46	488	152	614	979	55
Future Volume (veh/h)	109	127	46	176	67	321	46	488	152	614	979	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	138	50	191	0	398	50	530	165	667	1064	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	291	211	76	432	0	368	63	1133	531	868	1493	84
Arrive On Green	0.16	0.16	0.16	0.12	0.00	0.12	0.04	0.22	0.22	0.25	0.44	0.44
Sat Flow, veh/h	1781	1293	468	3563	0	3034	1781	5106	1528	3456	3410	192
Grp Volume(v), veh/h	118	0	188	191	0	398	50	530	165	667	554	570
Grp Sat Flow(s),veh/h/ln	1781	0	1761	1781	0	1517	1781	1702	1528	1728	1777	1825
Q Serve(g_s), s	4.4	0.0	7.4	3.7	0.0	9.0	2.1	6.7	5.9	13.3	18.9	18.9
Cycle Q Clear(g_c), s	4.4	0.0	7.4	3.7	0.0	9.0	2.1	6.7	5.9	13.3	18.9	18.9
Prop In Lane	1.00		0.27	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	291	0	287	432	0	368	63	1133	531	868	778	799
V/C Ratio(X)	0.41	0.00	0.65	0.44	0.00	1.08	0.80	0.47	0.31	0.77	0.71	0.71
Avail Cap(c_a), veh/h	576	0	570	432	0	368	96	1376	604	885	838	861
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	0.0	29.1	30.3	0.0	32.6	35.5	25.1	17.9	25.8	17.0	17.1
Incr Delay (d2), s/veh	0.7	0.0	1.9	2.6	0.0	70.4	11.7	1.4	1.5	5.8	5.5	5.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	0.0	5.7	2.9	0.0	11.2	1.9	4.7	4.6	9.5	12.2	12.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	0.0	31.0	32.8	0.0	103.0	47.3	26.4	19.5	31.6	22.6	22.4
LnGrp LOS	C	A	C	C	A	F	D	C	B	C	C	C
Approach Vol, veh/h		306			589			745			1791	
Approach Delay, s/veh		30.0			80.3			26.3			25.9	
Approach LOS		C			F			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.1	6.6	36.5		14.0	22.6	20.5				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	4.0	35.0		9.0	19.0	20.0				
Max Q Clear Time (g_c+I1), s		9.4	4.1	20.9		11.0	15.3	8.7				
Green Ext Time (p_c), s		1.1	0.0	11.5		0.0	2.1	6.8				

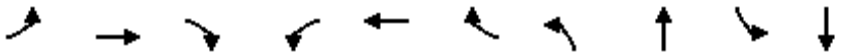
Intersection Summary												
HCM 6th Ctrl Delay			35.7									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	2
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	7	3	5
Ped. Right-Left Flow Rate (p/h)	3	9	2	7
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53595.0	21042.6	2466.8	32742.1
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2322.2	863.4	1875.0	854.0
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	34.7	34.7	37.4	37.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.11	3.00	3.03	3.44
Pedestrian Crosswalk LOS	B	C	C	C

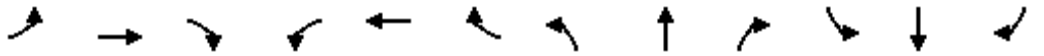
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	5	12	6
Total Flow Rate (veh/h)	306	613	745	1791
Effct. Green for Bike (s)	13.2	9.1	18.2	35.9
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	293	202	404	798
Bicycle Delay (s/bike)	32.9	36.5	28.8	16.3
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	3.33	3.76	1.68	3.08
Bicycle LOS	C	D	B	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	53	123	82	107	122	77	229	683	104	1148
v/c Ratio	0.27	0.50	0.21	0.28	0.32	0.18	0.54	0.29	0.53	0.61
Control Delay	40.8	37.2	1.3	34.9	27.1	0.9	38.0	14.6	48.1	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	37.2	1.3	34.9	27.1	0.9	38.0	14.6	48.1	21.8
Queue Length 50th (ft)	11	54	0	22	50	0	48	64	23	141
Queue Length 95th (ft)	36	102	0	56	91	0	#118	146	#74	285
Internal Link Dist (ft)		461			455			697		1255
Turn Bay Length (ft)	240		240	300		230	300		200	
Base Capacity (vph)	198	245	384	1691	917	839	447	2380	198	1972
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.50	0.21	0.06	0.13	0.09	0.51	0.29	0.53	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	113	75	98	112	71	211	580	49	99	1009	82
Future Volume (veh/h)	49	113	75	98	112	71	211	580	49	99	1009	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	123	82	107	122	77	229	630	53	104	1062	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	313	260	230	325	271	333	1916	160	177	1704	138
Arrive On Green	0.06	0.17	0.17	0.07	0.17	0.17	0.10	0.40	0.40	0.05	0.35	0.35
Sat Flow, veh/h	3456	1870	1557	3456	1870	1558	3456	4794	400	3456	4805	389
Grp Volume(v), veh/h	53	123	82	107	122	77	229	446	237	104	752	396
Grp Sat Flow(s),veh/h/ln	1728	1870	1557	1728	1870	1558	1728	1702	1789	1728	1702	1790
Q Serve(g_s), s	1.0	3.9	3.1	2.0	3.8	2.9	4.3	6.0	6.1	2.0	12.2	12.2
Cycle Q Clear(g_c), s	1.0	3.9	3.1	2.0	3.8	2.9	4.3	6.0	6.1	2.0	12.2	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		0.22
Lane Grp Cap(c), veh/h	207	313	260	230	325	271	333	1361	715	177	1207	635
V/C Ratio(X)	0.26	0.39	0.31	0.46	0.37	0.28	0.69	0.33	0.33	0.59	0.62	0.62
Avail Cap(c_a), veh/h	207	313	260	1763	954	795	467	1634	859	207	1379	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.9	24.7	24.4	30.0	24.3	23.9	29.1	13.8	13.8	30.9	17.8	17.8
Incr Delay (d2), s/veh	0.6	0.8	0.7	1.5	0.7	0.6	2.5	0.4	0.8	3.1	1.6	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	3.1	2.1	1.5	3.1	1.9	3.1	3.6	4.0	1.5	7.7	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	25.5	25.1	31.4	25.0	24.5	31.7	14.2	14.6	34.0	19.4	20.9
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	C
Approach Vol, veh/h		258			306			912			1252	
Approach Delay, s/veh		26.4			27.1			18.7			21.1	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.4	29.6	9.4	16.2	8.4	32.6	9.0	16.6
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	9.0	27.0	34.0	4.0	4.0	32.0	4.0	34.0
Max Q Clear Time (g_c+I1), s	6.3	14.2	4.0	5.9	4.0	8.1	3.0	5.8
Green Ext Time (p_c), s	0.2	9.4	0.5	0.0	0.0	9.0	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	100.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	6	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	30.0	30.0	30.0	30.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	6	3	1	6
Ped. Right-Left Flow Rate (p/h)	1	1	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73713.4	42105.3	117933.8	34666.4
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1398.2	3211.5	0.1	1249.3
Crosswalk Circulation Code	A	A	F	A
Pedestrian Delay (s/p)	38.9	38.9	47.5	38.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.64	2.57	3.13	3.11
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	1	0	4
Total Flow Rate (veh/h)	258	306	912	1252
Effct. Green for Bike (s)	9.4	14.5	33.9	26.7
Cross Street Width (ft)	100.0	99.0	68.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	198	305	714	562
Bicycle Delay (s/bike)	38.6	34.1	19.6	24.6
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	3.52	2.29	1.82	1.88
Bicycle LOS	D	B	B	B

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	22	28	987	31	1263
v/c Ratio	0.10	0.13	0.32	0.15	0.38
Control Delay	19.4	10.3	3.2	21.1	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.4	10.3	3.2	21.1	1.6
Queue Length 50th (ft)	6	0	0	8	0
Queue Length 95th (ft)	22	18	156	29	112
Internal Link Dist (ft)	233		1200		376
Turn Bay Length (ft)		175		100	
Base Capacity (vph)	1770	1583	3235	201	3432
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.01	0.02	0.31	0.15	0.37

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	20	26	825	83	29	1187
Future Volume (veh/h)	20	26	825	83	29	1187
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	28	897	90	31	1263
Peak Hour Factor	0.92	0.92	0.92	0.92	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	79	70	1635	164	80	2416
Arrive On Green	0.04	0.04	0.50	0.50	0.04	0.68
Sat Flow, veh/h	1781	1585	3343	326	1781	3647
Grp Volume(v), veh/h	22	28	490	497	31	1263
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1799	1781	1777
Q Serve(g_s), s	0.4	0.6	6.5	6.5	0.6	6.0
Cycle Q Clear(g_c), s	0.4	0.6	6.5	6.5	0.6	6.0
Prop In Lane	1.00	1.00		0.18	1.00	
Lane Grp Cap(c), veh/h	79	70	894	905	80	2416
V/C Ratio(X)	0.28	0.40	0.55	0.55	0.39	0.52
Avail Cap(c_a), veh/h	5108	4545	1950	1975	314	4996
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	15.8	5.8	5.8	15.8	2.7
Incr Delay (d2), s/veh	1.9	3.6	0.5	0.5	3.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	0.5	1.7	1.7	0.4	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.7	19.5	6.3	6.3	18.9	2.9
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	50		987			1294
Approach Delay, s/veh	18.7		6.3			3.3
Approach LOS	B		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.0	22.5			28.6	5.5
Change Period (Y+Rc), s	4.5	5.4			5.4	4.0
Max Green Setting (Gmax), s	6.0	37.4			47.9	97.7
Max Q Clear Time (g_c+I1), s	2.6	8.5			8.0	2.6
Green Ext Time (p_c), s	0.0	6.8			11.6	0.2

Intersection Summary	
HCM 6th Ctrl Delay	4.9
HCM 6th LOS	A

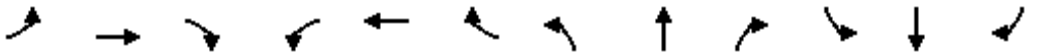
Approach	WB	NB	SB
Crosswalk Length (ft)	35.9	59.9	60.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	2	6	3
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	77.5	77.5	77.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	2.99	2.98
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	50	987	1294
Effct. Green for Bike (s)	6.6	49.1	51.2
Cross Street Width (ft)	60.1	35.9	59.9
Through Lanes Number	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	85	634	661
Bicycle Delay (s/bike)	71.0	36.2	34.8
Bicycle Compliance	Poor	Poor	Poor
Bicycle LOS Score	2.56	2.92	3.54
Bicycle LOS	C	C	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	34	10	93	102	66	84	988	167	63	992	31
v/c Ratio	0.15	0.03	0.26	0.43	0.21	0.21	0.44	0.16	0.15	0.46	0.03
Control Delay	23.3	19.8	4.2	30.6	8.6	8.2	13.7	5.0	7.8	14.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Total Delay	23.3	19.8	4.2	30.6	8.6	8.2	14.1	5.0	7.8	14.3	0.1
Queue Length 50th (ft)	15	4	0	46	4	8	126	6	6	123	0
Queue Length 95th (ft)	25	11	18	58	23	47	#359	54	37	#362	0
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	567	794	741	596	716	392	2257	1035	414	2177	996
Starvation Cap Reductn	0	0	0	0	0	0	680	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.01	0.13	0.17	0.09	0.21	0.63	0.16	0.15	0.46	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	9	86	94	8	52	77	909	154	61	962	30
Future Volume (veh/h)	31	9	86	94	8	52	77	909	154	61	962	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	10	0	102	9	57	84	988	167	63	992	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	207		244	24	154	456	2230	973	418	2207	970
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.06	0.63	0.63	0.05	0.62	0.62
Sat Flow, veh/h	1333	1870	1585	1401	220	1395	1781	3554	1551	1781	3554	1562
Grp Volume(v), veh/h	34	10	0	102	0	66	84	988	167	63	992	31
Grp Sat Flow(s),veh/h/ln	1333	1870	1585	1401	0	1615	1781	1777	1551	1781	1777	1562
Q Serve(g_s), s	1.8	0.4	0.0	5.3	0.0	2.8	1.2	10.8	3.4	0.9	11.0	0.6
Cycle Q Clear(g_c), s	4.7	0.4	0.0	5.6	0.0	2.8	1.2	10.8	3.4	0.9	11.0	0.6
Prop In Lane	1.00		1.00	1.00		0.86	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	207		244	0	178	456	2230	973	418	2207	970
V/C Ratio(X)	0.18	0.05		0.42	0.00	0.37	0.18	0.44	0.17	0.15	0.45	0.03
Avail Cap(c_a), veh/h	614	798		687	0	689	476	2230	973	450	2207	970
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.82	0.82	0.82	0.93	0.93	0.93
Uniform Delay (d), s/veh	33.1	29.8	0.0	32.3	0.0	30.9	5.1	7.2	5.8	5.0	7.5	5.5
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.4	0.0	0.5	0.1	0.5	0.3	0.2	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	0.3	0.0	3.2	0.0	2.0	0.5	5.5	1.6	0.4	5.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	29.9	0.0	32.8	0.0	31.4	5.1	7.7	6.1	5.2	8.1	5.6
LnGrp LOS	C	C		C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		44	A		168			1239			1086	
Approach Delay, s/veh		32.5			32.2			7.3			7.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	52.6		13.3	8.7	53.1		13.3				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	5.0	22.0		32.0	5.0	22.0		32.0				
Max Q Clear Time (g_c+I1), s	3.2	13.0		7.6	2.9	12.8		6.7				
Green Ext Time (p_c), s	0.0	7.1		0.2	0.0	7.7		0.0				

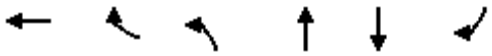
Intersection Summary			
HCM 6th Ctrl Delay		9.6	
HCM 6th LOS		A	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	12600.0	0.0	589777.6
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	14033.4
Crosswalk Circulation Code	-	-	-	A
Pedestrian Delay (s/p)	29.9	29.9	29.9	29.9
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.47	2.13	3.16	2.99
Pedestrian Crosswalk LOS	B	B	C	C

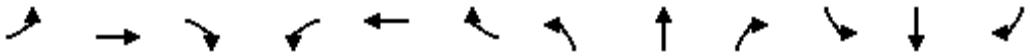
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	4
Total Flow Rate (veh/h)	137	168	1239	1086
Effct. Green for Bike (s)	12.6	12.6	47.8	46.1
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	336	336	1275	1229
Bicycle Delay (s/bike)	26.0	26.0	4.9	5.6
Bicycle Compliance	Fair	Fair	Good	Good
Bicycle LOS Score	3.10	3.21	1.62	1.96
Bicycle LOS	C	C	B	B



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	498	252	34	940	789	527
v/c Ratio	0.85	0.41	0.29	0.58	0.55	0.59
Control Delay	30.6	8.1	29.2	12.0	14.9	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.1
Total Delay	30.6	8.1	29.2	12.0	15.2	5.1
Queue Length 50th (ft)	124	23	10	103	81	0
Queue Length 95th (ft)	#266	65	#33	152	#161	57
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	625	639	117	1633	1435	891
Starvation Cap Reductn	0	0	0	0	209	21
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.80	0.39	0.29	0.58	0.64	0.61

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



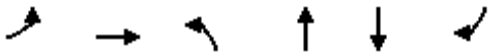
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	456	2	232	31	865	0	0	726	485
Future Volume (veh/h)	0	0	0	456	2	232	31	865	0	0	726	485
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				496	2	252	34	940	0	0	789	527
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				575	2	513	38	1685	0	0	1320	537
Arrive On Green				0.35	0.35	0.35	0.02	0.47	0.00	0.00	0.37	0.37
Sat Flow, veh/h				1662	7	1485	1668	3647	0	0	3647	1445
Grp Volume(v), veh/h				498	0	252	34	940	0	0	789	527
Grp Sat Flow(s),veh/h/ln				1669	0	1485	1668	1777	0	0	1777	1445
Q Serve(g_s), s				13.9	0.0	6.7	1.0	9.5	0.0	0.0	9.0	18.1
Cycle Q Clear(g_c), s				13.9	0.0	6.7	1.0	9.5	0.0	0.0	9.0	18.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				577	0	513	38	1685	0	0	1320	537
V/C Ratio(X)				0.86	0.00	0.49	0.90	0.56	0.00	0.00	0.60	0.98
Avail Cap(c_a), veh/h				634	0	564	100	1685	0	0	1320	537
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	0.90	0.90
Uniform Delay (d), s/veh				15.2	0.0	12.9	24.4	9.4	0.0	0.0	12.7	15.6
Incr Delay (d2), s/veh				11.0	0.0	0.7	39.6	1.1	0.0	0.0	1.8	32.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				10.3	0.0	3.6	1.4	4.7	0.0	0.0	5.3	13.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.3	0.0	13.6	64.0	10.5	0.0	0.0	14.5	48.3
LnGrp LOS				C	A	B	E	B	A	A	B	D
Approach Vol, veh/h					750			974			1316	
Approach Delay, s/veh					22.0			12.4			28.0	
Approach LOS					C			B			C	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	5.1	23.6				28.7		21.3				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	3.0	15.0				22.0		19.0				
Max Q Clear Time (g_c+I1), s	3.0	20.1				11.5		15.9				
Green Ext Time (p_c), s	0.0	0.0				4.5		1.4				

Intersection Summary		
HCM 6th Ctrl Delay		21.5
HCM 6th LOS		C

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	16.8	16.8	25.0	25.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.02	2.23	2.95	3.02
Pedestrian Crosswalk LOS	B	B	C	C

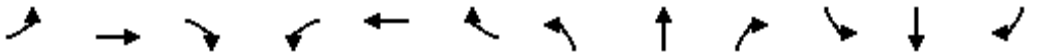
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	1	5
Total Flow Rate (veh/h)	0	750	974	1316
Effct. Green for Bike (s)	0.0	17.9	23.1	20.3
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	716	924	812
Bicycle Delay (s/bike)	0.0	10.3	7.2	8.8
Bicycle Compliance		Fair	Good	Good
Bicycle LOS Score	0.00	2.78	1.73	1.76
Bicycle LOS		C	B	B



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	434	408	84	395	1200	95
v/c Ratio	0.87	0.73	0.42	0.20	0.85	0.09
Control Delay	46.3	24.9	40.1	9.9	32.5	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	24.9	40.1	9.9	32.5	0.8
Queue Length 50th (ft)	220	130	42	53	314	0
Queue Length 95th (ft)	#385	244	83	77	#478	9
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	531	588	202	1987	1404	1126
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.69	0.42	0.20	0.85	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	547	0	227	0	0	0	77	363	0	0	1104	87
Future Volume (veh/h)	547	0	227	0	0	0	77	363	0	0	1104	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	421	244	247	0	0	0	84	395	0	0	1200	95
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	532	272	275	0	2	0	105	2003	0	0	1632	1138
Arrive On Green	0.32	0.32	0.32	0.00	0.00	0.00	0.06	0.56	0.00	0.00	0.46	0.46
Sat Flow, veh/h	1668	852	863	0	1870	0	1668	3647	0	0	3647	1448
Grp Volume(v), veh/h	421	0	491	0	0	0	84	395	0	0	1200	95
Grp Sat Flow(s),veh/h/ln	1668	0	1715	0	1870	0	1668	1777	0	0	1777	1448
Q Serve(g_s), s	19.5	0.0	23.2	0.0	0.0	0.0	4.2	4.6	0.0	0.0	23.4	1.3
Cycle Q Clear(g_c), s	19.5	0.0	23.2	0.0	0.0	0.0	4.2	4.6	0.0	0.0	23.4	1.3
Prop In Lane	1.00		0.50	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	532	0	547	0	2	0	105	2003	0	0	1632	1138
V/C Ratio(X)	0.79	0.00	0.90	0.00	0.00	0.00	0.80	0.20	0.00	0.00	0.74	0.08
Avail Cap(c_a), veh/h	569	0	585	0	88	0	106	2003	0	0	1632	1138
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.82	0.82
Uniform Delay (d), s/veh	26.4	0.0	27.6	0.0	0.0	0.0	39.3	9.1	0.0	0.0	18.8	2.2
Incr Delay (d2), s/veh	7.1	0.0	16.0	0.0	0.0	0.0	33.3	0.2	0.0	0.0	2.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.2	0.0	17.1	0.0	0.0	0.0	4.7	2.8	0.0	0.0	13.3	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	0.0	43.7	0.0	0.0	0.0	72.6	9.3	0.0	0.0	21.2	2.4
LnGrp LOS	C	A	D	A	A	A	E	A	A	A	C	A
Approach Vol, veh/h		912			0			479			1295	
Approach Delay, s/veh		38.9			0.0			20.4			19.8	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.9	45.0		31.1		53.9		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	5.4	29.1		29.0		38.0		4.0				
Max Q Clear Time (g_c+I1), s	6.2	25.4		25.2		6.6		0.0				
Green Ext Time (p_c), s	0.0	2.5		1.9		2.5		0.0				

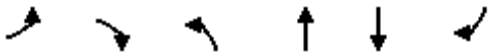
Intersection Summary												
HCM 6th Ctrl Delay			26.4									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	34.0	34.0	42.5	42.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.50	1.42	2.87	2.98
Pedestrian Crosswalk LOS	C	A	C	C

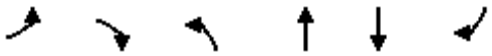
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	2	6
Total Flow Rate (veh/h)	842	0	479	1295
Effct. Green for Bike (s)	27.3	4.5	47.7	33.7
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	642	106	1122	793
Bicycle Delay (s/bike)	19.6	38.1	8.2	15.5
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	4.02	1.39	1.74	2.40
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1119	168	128	510	264	318
v/c Ratio	0.81	0.21	0.35	0.68	0.53	0.30
Control Delay	24.7	4.0	13.8	20.1	24.4	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.7	4.0	13.8	20.1	24.4	3.8
Queue Length 50th (ft)	188	0	30	151	90	30
Queue Length 95th (ft)	#395	38	57	236	151	51
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		180	200			
Base Capacity (vph)	1389	789	371	1146	814	1050
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.21	0.35	0.45	0.32	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1074	161	118	469	253	305
Future Volume (veh/h)	1074	161	118	469	253	305
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	1119	168	128	510	264	318
Peak Hour Factor	0.96	0.96	0.92	0.92	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1372	654	338	755	430	981
Arrive On Green	0.40	0.40	0.07	0.40	0.23	0.23
Sat Flow, veh/h	3456	1648	1781	1870	1870	1531
Grp Volume(v), veh/h	1119	168	128	510	264	318
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1531
Q Serve(g_s), s	17.4	4.1	3.1	13.5	7.6	5.9
Cycle Q Clear(g_c), s	17.4	4.1	3.1	13.5	7.6	5.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1372	654	338	755	430	981
V/C Ratio(X)	0.82	0.26	0.38	0.68	0.61	0.32
Avail Cap(c_a), veh/h	1434	684	353	1180	838	1315
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	12.2	15.2	14.7	20.8	5.3
Incr Delay (d2), s/veh	4.5	0.6	0.7	1.3	1.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.4	8.1	2.0	8.3	5.7	7.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.7	12.8	15.9	16.0	22.7	5.6
LnGrp LOS	C	B	B	B	C	A
Approach Vol, veh/h	1287			638	582	
Approach Delay, s/veh	19.7			16.0	13.3	
Approach LOS	B			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		30.3		29.9	10.5	19.8
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		38.0		25.0	5.0	27.0
Max Q Clear Time (g_c+I1), s		15.5		19.4	5.1	9.6
Green Ext Time (p_c), s		3.7		4.5	0.0	3.8

Intersection Summary		
HCM 6th Ctrl Delay		17.3
HCM 6th LOS		B

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	10.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	1	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196592.5	32400.0	294870.1
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	2771.5	12361.5	0.0
Crosswalk Circulation Code	A	A	-
Pedestrian Delay (s/p)	29.9	29.9	37.5
Pedestrian Compliance Code	Fair	Fair	Poor
Pedestrian Crosswalk Score	2.83	2.46	2.85
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	3	6	4
Total Flow Rate (veh/h)	1287	638	582
Effct. Green for Bike (s)	25.4	25.1	16.7
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	677	669	445
Bicycle Delay (s/bike)	16.4	16.7	22.7
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	2.10	2.34	2.23
Bicycle LOS	B	B	B

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	214	1365	145	0	770
Future Vol, veh/h	0	214	1365	145	0	770
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	214	1365	145	0	770

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	755	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	351	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	351	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	351	-
HCM Lane V/C Ratio	-	-	0.61	-
HCM Control Delay (s)	-	-	30	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	3.8	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	131974.7
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2135
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	131976.38
Avg Ped Delay (s)	131974.69

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	131974.7
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2135
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	131976.38
Avg Ped Delay (s)	131974.69

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	272	1773	95	464
v/c Ratio	0.56	0.69	0.74	0.18
Control Delay	32.4	8.8	46.7	4.3
Queue Delay	0.0	0.1	0.0	0.0
Total Delay	32.4	8.9	46.7	4.3
Queue Length 50th (ft)	58	194	22	29
Queue Length 95th (ft)	94	475	#154	77
Internal Link Dist (ft)	742	269		1054
Turn Bay Length (ft)			170	
Base Capacity (vph)	923	2553	129	2625
Starvation Cap Reductn	0	141	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.29	0.74	0.74	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	161	100	1328	304	87	427
Future Volume (vph)	161	100	1328	304	87	427
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		6.0		6.0	6.0
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.94		0.97		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3272		3424		1769	3539
Flt Permitted	0.97		1.00		0.09	1.00
Satd. Flow (perm)	3272		3424		175	3539
Peak-hour factor, PHF	0.96	0.96	0.92	0.92	0.92	0.92
Adj. Flow (vph)	168	104	1443	330	95	464
RTOR Reduction (vph)	48	0	14	0	0	0
Lane Group Flow (vph)	224	0	1759	0	95	464
Confl. Peds. (#/hr)		3		2	2	
Confl. Bikes (#/hr)				4		
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	12.0		66.2		66.2	66.2
Effective Green, g (s)	12.0		66.2		66.2	66.2
Actuated g/C Ratio	0.13		0.74		0.74	0.74
Clearance Time (s)	5.0		6.0		6.0	6.0
Vehicle Extension (s)	2.0		5.5		5.5	5.5
Lane Grp Cap (vph)	440		2541		129	2626
v/s Ratio Prot	c0.07		0.51			0.13
v/s Ratio Perm					c0.54	
v/c Ratio	0.51		0.69		0.74	0.18
Uniform Delay, d1	35.9		6.1		6.5	3.4
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	0.3		1.1		24.5	0.1
Delay (s)	36.2		7.2		31.0	3.5
Level of Service	D		A		C	A
Approach Delay (s)	36.2		7.2			8.2
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	89.2	Sum of lost time (s)	11.0
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	1	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	2	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	4621.0	16173.5	10747.1
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	2104.4	0.0	3213.5
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	42.3	39.6	42.3
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.23	3.10	2.85
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	5	6
Total Flow Rate (veh/h)	272	1773	559
Effct. Green for Bike (s)	12.0	66.2	66.2
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	240	1324	1324
Bicycle Delay (s/bike)	38.8	5.7	5.7
Bicycle Compliance	Poor	Good	Good
Bicycle LOS Score	1.20	2.65	1.94
Bicycle LOS	A	C	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	39	32	142	145	283	24	671	811	498	367
v/c Ratio	0.18	0.11	0.45	0.50	0.39	0.18	0.66	0.73	0.71	0.21
Control Delay	34.2	0.7	35.0	37.1	5.9	44.3	30.0	6.0	39.4	15.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	0.7	35.0	37.1	5.9	44.3	30.0	6.0	39.4	15.8
Queue Length 50th (ft)	18	0	63	65	0	11	142	14	118	43
Queue Length 95th (ft)	47	0	150	155	37	43	#300	78	#291	138
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		160	165	
Base Capacity (vph)	678	668	517	467	990	140	1197	1212	697	1767
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.05	0.27	0.31	0.29	0.17	0.56	0.67	0.71	0.21

Intersection Summary

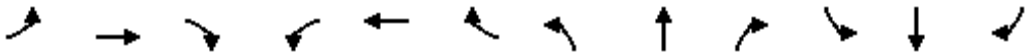
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	13	29	257	7	260	23	631	762	458	329	8
Future Volume (vph)	23	13	29	257	7	260	23	631	762	458	329	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5	
Lane Util. Factor		1.00	1.00	0.95	0.95	0.88	1.00	0.95	1.00	0.97	0.95	
Frpb, ped/bikes		1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1805	1552	1681	1521	2585	1770	3539	1560	3433	3524	
Flt Permitted		0.97	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1805	1552	1681	1521	2585	1770	3539	1560	3433	3524	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	25	14	32	279	8	283	24	671	811	498	358	9
RTOR Reduction (vph)	0	0	29	0	0	231	0	0	352	0	1	0
Lane Group Flow (vph)	0	39	3	142	145	52	24	671	459	498	366	0
Confl. Peds. (#/hr)	2		4	4		2			9	9		
Confl. Bikes (#/hr)			2						4			6
Parking (#/hr)					0	0						
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)		7.6	7.6	14.5	14.5	14.5	1.9	24.6	39.1	15.5	38.2	
Effective Green, g (s)		7.6	7.6	14.5	14.5	14.5	1.9	24.6	39.1	15.5	38.2	
Actuated g/C Ratio		0.10	0.10	0.18	0.18	0.18	0.02	0.31	0.49	0.20	0.48	
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5	
Vehicle Extension (s)		2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0	3.5	5.0	
Lane Grp Cap (vph)		173	148	307	278	473	42	1099	770	671	1699	
v/s Ratio Prot		c0.02		0.08	0.10		0.01	c0.19	c0.11	c0.15	0.10	
v/s Ratio Perm			0.00			0.02			0.18			
v/c Ratio		0.23	0.02	0.46	0.52	0.11	0.57	0.61	0.60	0.74	0.22	
Uniform Delay, d1		33.1	32.4	28.9	29.2	27.0	38.2	23.2	14.4	30.0	11.8	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2	0.0	0.4	0.8	0.0	11.1	1.5	0.8	4.6	0.1	
Delay (s)		33.3	32.4	29.3	30.0	27.0	49.4	24.7	15.2	34.5	12.0	
Level of Service		C	C	C	C	C	D	C	B	C	B	
Approach Delay (s)		32.9			28.3			20.0			25.0	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	23.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	79.2	Sum of lost time (s)	17.0
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	6
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	0	6	1	1
Ped. Right-Left Flow Rate (p/h)	0	3	3	1
Ped. R. Sidewalk Flow Rate (p/h)	1	1	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	117951.8	49132.6	45331.6	294879.5
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	2400.6	1880.3
Crosswalk Circulation Code	-	F	A	A
Pedestrian Delay (s/p)	44.8	44.8	44.8	44.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	3.00	3.42	2.86
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	4	2	4	9
Total Flow Rate (veh/h)	71	570	1506	865
Effct. Green for Bike (s)	9.0	14.5	22.0	38.2
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	5.5	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	171	276	419	728
Bicycle Delay (s/bike)	44.0	39.0	32.9	21.3
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.72	2.33	2.49	1.95
Bicycle LOS	C	B	B	B

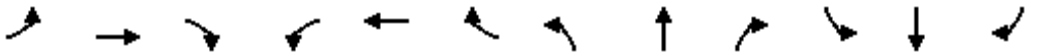


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	103	1373	360	122	562	127	392	289	85	450	563	78
v/c Ratio	0.44	1.01	0.44	0.79	0.42	0.19	0.92	0.38	0.19	1.05	0.73	0.17
Control Delay	46.5	54.4	4.4	76.1	22.8	3.6	66.8	30.9	1.9	97.0	38.5	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	54.4	4.4	76.1	22.8	3.6	66.8	30.9	1.9	97.0	38.5	1.2
Queue Length 50th (ft)	29	~443	3	36	129	0	115	72	0	~147	154	0
Queue Length 95th (ft)	55	#575	57	#84	177	29	#202	109	8	#242	211	4
Internal Link Dist (ft)		1706			363			1325			863	
Turn Bay Length (ft)	250		250	120		200	300		120	210		120
Base Capacity (vph)	233	1365	810	155	1330	676	428	843	476	428	843	478
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	1.01	0.44	0.79	0.42	0.19	0.92	0.34	0.18	1.05	0.67	0.16

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	95	1263	331	112	517	117	376	277	82	414	518	72
Future Volume (veh/h)	95	1263	331	112	517	117	376	277	82	414	518	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	103	1373	360	122	562	127	392	289	85	450	563	78
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	167	1376	608	157	1367	595	433	720	311	433	720	310
Arrive On Green	0.05	0.39	0.39	0.05	0.38	0.38	0.13	0.20	0.20	0.13	0.20	0.20
Sat Flow, veh/h	3456	3554	1569	3456	3554	1546	3456	3554	1534	3456	3554	1531
Grp Volume(v), veh/h	103	1373	360	122	562	127	392	289	85	450	563	78
Grp Sat Flow(s),veh/h/ln	1728	1777	1569	1728	1777	1546	1728	1777	1534	1728	1777	1531
Q Serve(g_s), s	2.6	33.9	16.0	3.1	10.1	4.8	9.8	6.2	4.1	11.0	13.2	3.8
Cycle Q Clear(g_c), s	2.6	33.9	16.0	3.1	10.1	4.8	9.8	6.2	4.1	11.0	13.2	3.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	1376	608	157	1367	595	433	720	311	433	720	310
V/C Ratio(X)	0.62	1.00	0.59	0.77	0.41	0.21	0.91	0.40	0.27	1.04	0.78	0.25
Avail Cap(c_a), veh/h	236	1376	608	157	1367	595	433	850	367	433	850	366
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	26.9	21.4	41.4	19.7	18.1	37.9	30.4	29.5	38.4	33.2	29.4
Incr Delay (d2), s/veh	3.7	23.6	1.1	21.1	0.1	0.1	22.0	0.5	0.6	53.8	4.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	24.4	9.5	3.1	7.0	2.9	9.1	4.6	2.7	12.4	9.8	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	50.5	22.5	62.5	19.8	18.2	59.9	30.8	30.2	92.2	37.5	29.9
LnGrp LOS	D	D	C	E	B	B	E	C	C	F	D	C
Approach Vol, veh/h		1836			811			766			1091	
Approach Delay, s/veh		44.7			26.0			45.6			59.5	
Approach LOS		D			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	23.8	8.0	40.0	16.0	23.8	8.2	39.8
Change Period (Y+Rc), s	5.0	6.0	4.0	* 6	5.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	11.0	21.0	4.0	* 34	11.0	21.0	6.0	31.0
Max Q Clear Time (g_c+I1), s	13.0	8.2	5.1	35.9	11.8	15.2	4.6	12.1
Green Ext Time (p_c), s	0.0	2.1	0.0	0.0	0.0	2.3	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	45.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

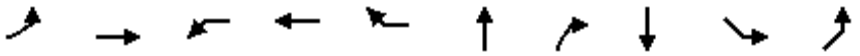
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	90.0	90.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	7	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	3	1	4	0
Ped. R. Sidewalk Flow Rate (p/h)	6	3	2	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	4067.3	8177.9	3892.3	30000.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	5215.5	1994.1	1112.1	0.0
Crosswalk Circulation Code	A	A	A	-
Pedestrian Delay (s/p)	34.7	34.7	34.7	34.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.22	3.14	3.00	3.00
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	1	8	15
Total Flow Rate (veh/h)	1836	811	766	1091
Effct. Green for Bike (s)	34.0	33.2	19.1	19.1
Cross Street Width (ft)	80.0	80.0	80.0	80.0
Through Lanes Number	2	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	756	738	424	424
Bicycle Delay (s/bike)	17.4	17.9	28.0	28.1
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	3.01	2.17	2.13	2.40
Bicycle LOS	C	B	B	B

Intersection	
Intersection Delay, s/veh	21.1
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	0
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1375	996	605	0
Demand Flow Rate, veh/h	1411	1043	617	0
Vehicles Circulating, veh/h	0	276	1411	834
Vehicles Exiting, veh/h	834	1752	0	485
Ped Vol Crossing Leg, #/h	5	5	5	5
Ped Cap Adj	0.994	0.996	1.000	1.000
Approach Delay, s/veh	8.0	9.1	70.5	0.0
Approach LOS	A	A	F	-

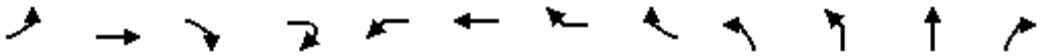
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	R
Assumed Moves	LT	TR	LT	TR	LT	R
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	0.272	0.728
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	663	748	490	553	168	449
Cap Entry Lane, veh/h	1350	1420	1047	1123	369	428
Entry HV Adj Factor	0.975	0.975	0.955	0.954	0.982	0.980
Flow Entry, veh/h	646	729	468	528	165	440
Cap Entry, veh/h	1309	1376	996	1067	362	419
V/C Ratio	0.494	0.530	0.470	0.495	0.456	1.049
Control Delay, s/veh	7.9	8.2	9.1	9.1	20.3	89.3
LOS	A	A	A	A	C	F
95th %tile Queue, veh	3	3	3	3	2	14



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	17	1135	28	633	327	44	82	398	20	20
v/c Ratio	0.21	0.80	0.40	0.43	0.47	0.09	0.12	0.84	0.19	0.08
Control Delay	60.6	35.1	71.2	25.9	16.9	28.5	0.4	51.1	57.7	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.6	35.1	71.2	25.9	16.9	28.5	0.4	51.1	57.7	0.6
Queue Length 50th (ft)	10	306	17	115	58	17	0	218	12	0
Queue Length 95th (ft)	39	#629	#67	287	220	57	0	#550	43	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	88	1440	70	1472	704	505	657	474	103	340
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.79	0.40	0.43	0.46	0.09	0.12	0.84	0.19	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	EBR2	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	16	1029	3	24	26	582	163	138	13	15	13	75
Future Volume (vph)	16	1029	3	24	26	582	163	138	13	15	13	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00				1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.94				1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85				1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00	1.00				0.97	1.00
Satd. Flow (prot)	1770	3523			1770	3539	1493				1797	1552
Flt Permitted	0.95	1.00			0.95	1.00	1.00				0.76	1.00
Satd. Flow (perm)	1770	3523			1770	3539	1493				1407	1552
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	1106	3	26	28	633	177	150	14	16	14	82
RTOR Reduction (vph)	0	0	0	0	0	0	92	0	0	0	0	55
Lane Group Flow (vph)	17	1135	0	0	28	633	235	0	0	0	44	27
Confl. Peds. (#/hr)			1	1			5	5	2	2		5
Confl. Bikes (#/hr)			2	2			4	4				5
Turn Type	Prot	NA			Prot	NA	Perm		Perm	Perm	NA	Perm
Protected Phases	5	2			1	6					8	
Permitted Phases							6		8	8		8
Actuated Green, G (s)	1.7	43.0			2.2	42.5	42.5				36.9	36.9
Effective Green, g (s)	1.7	43.0			2.2	42.5	42.5				36.9	36.9
Actuated g/C Ratio	0.02	0.38			0.02	0.38	0.38				0.33	0.33
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0				3.5	3.5
Lane Grp Cap (vph)	26	1339			34	1329	561				459	506
v/s Ratio Prot	0.01	c0.32			c0.02	0.18						
v/s Ratio Perm							0.16				0.03	0.02
v/c Ratio	0.65	0.85			0.82	0.48	0.42				0.10	0.05
Uniform Delay, d1	55.4	32.1			55.3	26.8	26.1				26.5	26.1
Progression Factor	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Incremental Delay, d2	37.0	5.7			82.1	0.6	1.1				0.1	0.1
Delay (s)	92.4	37.8			137.4	27.4	27.2				26.6	26.2
Level of Service	F	D			F	C	C				C	C
Approach Delay (s)		38.6				30.5					26.3	
Approach LOS		D				C					C	

Intersection Summary			
HCM 2000 Control Delay	39.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	113.1	Sum of lost time (s)	27.0
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		

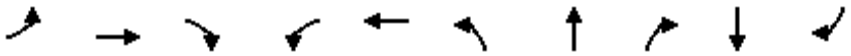
c Critical Lane Group

Movement	SBL	SBT	SBR	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations											
Traffic Volume (vph)	311	10	45	5	5	5	5	5	5	5	5
Future Volume (vph)	311	10	45	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0				5.0		
Lane Util. Factor		1.00			1.00				1.00		
Frpb, ped/bikes		1.00			1.00				1.00		
Flpb, ped/bikes		0.99			1.00				1.00		
Frt		0.98			0.93				0.93		
Flt Protected		0.96			0.98				0.98		
Satd. Flow (prot)		1743			1695				1695		
Flt Permitted		0.73			1.00				0.98		
Satd. Flow (perm)		1322			1737				1695		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	338	11	49	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	0	398	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)	5		2								
Confl. Bikes (#/hr)											
Turn Type	Perm	NA		Perm	Prot			Perm	Prot		
Protected Phases		4			7				3		
Permitted Phases	4			7				3			
Actuated Green, G (s)		36.9			2.0				3.0		
Effective Green, g (s)		36.9			2.0				3.0		
Actuated g/C Ratio		0.33			0.02				0.03		
Clearance Time (s)		5.0			5.0				5.0		
Vehicle Extension (s)		3.5			2.0				1.5		
Lane Grp Cap (vph)		431			30				44		
v/s Ratio Prot											
v/s Ratio Perm		c0.30			c0.01				0.00		
v/c Ratio		0.92			0.67				0.01		
Uniform Delay, d1		36.7			55.2				53.6		
Progression Factor		1.00			1.00				1.00		
Incremental Delay, d2		25.6			35.7				0.0		
Delay (s)		62.4			90.9				53.6		
Level of Service		E			F				D		
Approach Delay (s)		62.4			90.9				53.6		
Approach LOS		E			F				D		

Intersection Summary

Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	71.9	71.7	39.6	24.9	24.1	39.3
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29667.5	11552.9	0.0	72900.0	24278.3
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2260.8	4209.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	52.0	52.0	52.0	52.0	52.0	52.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.85	3.32	2.01	2.00	1.82	1.78
Pedestrian Crosswalk LOS	C	C	B	B	B	B

Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	1152	988	126	398	20	20
Effct. Green for Bike (s)	41.3	42.5	36.9	36.9	6.2	7.1
Cross Street Width (ft)	39.3	24.9	71.7	24.1	71.9	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	661	680	590	590	99	114
Bicycle Delay (s/bike)	28.1	27.4	31.3	31.1	56.5	55.6
Bicycle Compliance	Fair	Fair	Poor	Poor	Poor	Poor
Bicycle LOS Score	3.11	1.47	2.86	2.59	2.69	2.20
Bicycle LOS	C	A	C	C	C	B

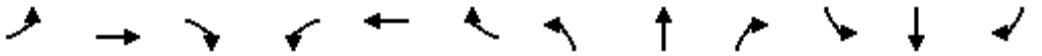


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	25	720	547	305	558	122	124	198	25	9
v/c Ratio	0.20	0.56	0.75	1.01	0.23	0.50	0.51	0.31	0.11	0.03
Control Delay	42.5	23.8	20.7	93.3	15.9	39.1	39.3	5.4	29.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	23.8	20.7	93.3	15.9	39.1	39.3	5.4	29.5	0.1
Queue Length 50th (ft)	11	131	103	~76	43	52	53	0	10	0
Queue Length 95th (ft)	44	#313	#419	#229	144	136	138	52	32	0
Internal Link Dist (ft)		217			575		1379		108	
Turn Bay Length (ft)	145		90	310		150				50
Base Capacity (vph)	129	1296	730	302	2460	739	741	640	781	765
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.56	0.75	1.01	0.23	0.17	0.17	0.31	0.03	0.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	662	503	281	474	40	225	1	182	22	1	8
Future Volume (veh/h)	23	662	503	281	474	40	225	1	182	22	1	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	720	547	305	515	43	246	0	198	24	1	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	39	1284	558	300	2042	168	589	0	398	68	3	62
Arrive On Green	0.02	0.36	0.36	0.09	0.43	0.43	0.17	0.00	0.17	0.04	0.04	0.04
Sat Flow, veh/h	1781	3554	1543	3456	4792	395	3563	0	1576	1713	71	1560
Grp Volume(v), veh/h	25	720	547	305	364	194	246	0	198	25	0	9
Grp Sat Flow(s),veh/h/ln	1781	1777	1543	1728	1702	1783	1781	0	1576	1785	0	1560
Q Serve(g_s), s	1.0	11.2	24.3	6.0	4.8	4.9	4.3	0.0	7.4	0.9	0.0	0.4
Cycle Q Clear(g_c), s	1.0	11.2	24.3	6.0	4.8	4.9	4.3	0.0	7.4	0.9	0.0	0.4
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	0.96		1.00
Lane Grp Cap(c), veh/h	39	1284	558	300	1450	759	589	0	398	70	0	62
V/C Ratio(X)	0.64	0.56	0.98	1.02	0.25	0.26	0.42	0.00	0.50	0.35	0.00	0.15
Avail Cap(c_a), veh/h	129	1284	558	300	1450	759	1545	0	821	774	0	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.6	17.7	21.9	31.6	12.8	12.8	25.9	0.0	22.1	32.4	0.0	32.1
Incr Delay (d2), s/veh	8.8	1.8	33.7	56.5	0.4	0.8	0.4	0.0	0.7	1.8	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	7.6	18.4	8.3	3.0	3.3	3.1	0.0	4.6	0.8	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	19.5	55.6	88.1	13.2	13.6	26.2	0.0	22.8	34.2	0.0	32.8
LnGrp LOS	D	B	E	F	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1292			863			444			34	
Approach Delay, s/veh		35.2			39.8			24.7			33.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	31.0		8.7	7.5	35.5		17.4				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	6.0	25.0		30.0	5.0	26.0		30.0				
Max Q Clear Time (g_c+I1), s	8.0	26.3		2.9	3.0	6.9		9.4				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	8.2		1.5				

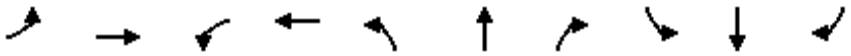
Intersection Summary			
HCM 6th Ctrl Delay		34.9	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	105.0	120.0	90.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	8	5	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	14.00	14.00	14.00	14.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	2
Ped. Right-Left Flow Rate (p/h)	1	0	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	40	25
Right Corner Area per Ped (sq.ft)	2484.7	2080.4	6300.0	1360.8
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	4248.8	0.0	5946.9	1857.2
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	47.0	47.0	47.0	47.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.07	3.05	2.70	1.98
Pedestrian Crosswalk LOS	C	C	C	B

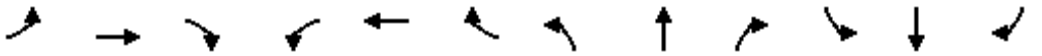
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	16	9	0	1
Total Flow Rate (veh/h)	1292	863	444	34
Effct. Green for Bike (s)	26.2	35.1	10.3	9.1
Cross Street Width (ft)	70.0	55.0	87.0	82.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	456	610	179	158
Bicycle Delay (s/bike)	34.6	27.9	47.7	48.8
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.20	1.59	2.34	1.58
Bicycle LOS	B	B	B	B



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	30	1130	135	463	197	195	451	11	11	9
v/c Ratio	0.26	0.46	0.61	0.15	0.75	0.74	0.66	0.08	0.08	0.04
Control Delay	50.1	20.4	59.2	3.1	56.8	55.8	10.5	41.1	41.2	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	20.4	59.2	3.1	56.8	55.8	10.5	41.1	41.2	0.2
Queue Length 50th (ft)	18	174	56	21	125	124	46	7	7	0
Queue Length 95th (ft)	49	288	128	15	#210	#205	127	23	23	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	117	2469	311	3046	303	305	746	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.46	0.43	0.15	0.65	0.64	0.60	0.04	0.04	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	982	58	124	409	17	349	12	415	12	8	8
Future Volume (veh/h)	28	982	58	124	409	17	349	12	415	12	8	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	30	1067	63	135	445	18	388	0	451	11	12	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	40	2580	152	164	3017	121	634	0	423	49	48	43
Arrive On Green	0.02	0.52	0.52	0.20	1.00	1.00	0.19	0.00	0.19	0.03	0.03	0.03
Sat Flow, veh/h	1781	4918	290	1668	5029	202	3337	0	1460	1781	1752	1561
Grp Volume(v), veh/h	30	738	392	135	300	163	388	0	451	11	12	9
Grp Sat Flow(s),veh/h/ln	1781	1702	1804	1668	1702	1826	1668	0	1460	1781	1752	1561
Q Serve(g_s), s	1.7	13.2	13.2	7.8	0.0	0.0	10.7	0.0	19.0	0.6	0.7	0.6
Cycle Q Clear(g_c), s	1.7	13.2	13.2	7.8	0.0	0.0	10.7	0.0	19.0	0.6	0.7	0.6
Prop In Lane	1.00		0.16	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	40	1786	946	164	2042	1096	634	0	423	49	48	43
V/C Ratio(X)	0.74	0.41	0.41	0.83	0.15	0.15	0.61	0.00	1.07	0.23	0.25	0.21
Avail Cap(c_a), veh/h	107	1786	946	317	2042	1096	634	0	423	285	280	250
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.93	0.93	0.93	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.6	14.4	14.4	39.4	0.0	0.0	37.1	0.0	35.7	47.6	47.6	47.6
Incr Delay (d2), s/veh	21.8	0.7	1.2	9.4	0.1	0.3	1.7	0.0	62.5	2.3	2.7	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	8.4	9.0	5.9	0.1	0.1	7.9	0.0	25.1	0.5	0.6	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.4	15.1	15.7	48.7	0.1	0.3	38.9	0.0	98.1	49.9	50.3	50.0
LnGrp LOS	E	B	B	D	A	A	D	A	F	D	D	D
Approach Vol, veh/h		1160			598			839			32	
Approach Delay, s/veh		16.7			11.1			70.7			50.1	
Approach LOS		B			B			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	13.8	56.5		6.7	6.3	64.0		23.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	19.0	30.0		16.0	6.0	43.0		19.0				
Max Q Clear Time (g_c+I1), s	9.8	15.2		2.7	3.7	2.0		21.0				
Green Ext Time (p_c), s	0.3	6.7		0.1	0.0	3.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		33.1	
HCM 6th LOS		C	

Notes

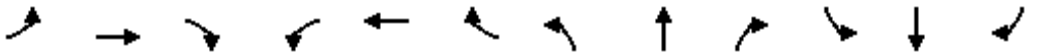
User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	100.0	90.0	100.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	0.1	8.0	0.1	12.0
Right Corner Size B (ft)	6.0	0.1	10.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.60	0.80	1.00	1.20
Ped. Left-Right Flow Rate (p/h)	0	0	3	1
Ped. Right-Left Flow Rate (p/h)	2	0	8	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21.6	668.2	44.2	270.0
Right Corner Quality of Service	D	A	B	A
Ped. Circulation Area (sq.ft)	6056.1	0.0	1035.7	11234.4
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.93	2.95	2.75	2.17
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	20	11	0	0
Total Flow Rate (veh/h)	1160	598	843	31
Effct. Green for Bike (s)	49.3	60.3	16.9	8.0
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	986	1206	338	160
Bicycle Delay (s/bike)	13.0	7.9	34.5	42.3
Bicycle Compliance	Fair	Good	Poor	Poor
Bicycle LOS Score	1.91	1.60	3.29	2.93
Bicycle LOS	B	B	C	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	479	1027	647	38	210
v/c Ratio	0.63	0.38	0.40	0.15	0.67
Control Delay	35.3	9.3	19.0	32.4	28.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.3	9.3	19.0	32.4	28.8
Queue Length 50th (ft)	71	74	121	22	67
Queue Length 95th (ft)	179	310	238	39	111
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	763	2689	1636	557	557
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.38	0.40	0.07	0.38

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	441	945	0	0	485	110	35	3	190	0	0	0
Future Volume (veh/h)	441	945	0	0	485	110	35	3	190	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	479	1027	0	0	527	120	38	3	207			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1276	2609	0	0	860	195	310	4	269			
Arrive On Green	0.79	1.00	0.00	0.00	0.30	0.30	0.19	0.19	0.19			
Sat Flow, veh/h	3237	3647	0	0	2962	650	1668	21	1450			
Grp Volume(v), veh/h	479	1027	0	0	326	321	38	0	210			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1741	1668	0	1471			
Q Serve(g_s), s	4.4	0.0	0.0	0.0	15.7	15.9	1.9	0.0	13.6			
Cycle Q Clear(g_c), s	4.4	0.0	0.0	0.0	15.7	15.9	1.9	0.0	13.6			
Prop In Lane	1.00		0.00	0.00		0.37	1.00		0.99			
Lane Grp Cap(c), veh/h	1276	2609	0	0	533	522	310	0	273			
V/C Ratio(X)	0.38	0.39	0.00	0.00	0.61	0.62	0.12	0.00	0.77			
Avail Cap(c_a), veh/h	1276	2609	0	0	533	522	567	0	500			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	0.96	0.96	1.00	0.00	1.00			
Uniform Delay (d), s/veh	6.9	0.0	0.0	0.0	30.0	30.0	33.9	0.0	38.7			
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.0	4.9	5.1	0.2	0.0	4.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.2	0.2	0.0	0.0	11.6	11.5	1.4	0.0	8.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.0	0.4	0.0	0.0	34.9	35.2	34.1	0.0	43.2			
LnGrp LOS	A	A	A	A	C	D	C	A	D			
Approach Vol, veh/h		1506			647			248				
Approach Delay, s/veh		2.5			35.1			41.8				
Approach LOS		A			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.4			43.4	34.0		22.6				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			24.0	30.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			6.4	17.9		15.6				
Green Ext Time (p_c), s		9.8			2.1	3.2		1.4				
Intersection Summary												
HCM 6th Ctrl Delay			15.3									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	100.0	55.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0	0.1
Right Corner Size B (ft)	6.0	6.0	6.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	3548.2	4628.6	1884.6	0.0
Right Corner Quality of Service	A	A	A	-
Ped. Circulation Area (sq.ft)	0.0	1347.2	1252.8	0.0
Crosswalk Circulation Code	-	A	A	-
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.86	2.70	1.96	2.02
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	7	12	0	0
Total Flow Rate (veh/h)	1506	647	248	0
Effct. Green for Bike (s)	76.0	48.0	16.0	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1520	960	320	0
Bicycle Delay (s/bike)	2.9	13.6	35.3	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.36	1.57	2.14	0.00
Bicycle LOS	B	B	B	

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	377	80	861	957
Demand Flow Rate, veh/h	385	81	879	976
Vehicles Circulating, veh/h	766	879	164	309
Vehicles Exiting, veh/h	519	164	987	651
Ped Vol Crossing Leg, #/h	5	5	0	0
Ped Cap Adj	0.999	0.999	1.000	1.000
Approach Delay, s/veh	8.9	6.8	6.7	8.8
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Left	Right	Left	Right
Designated Moves	LT	R	LTR	LT	TR	LT	TR
Assumed Moves	LT	R	LTR	LT	TR	LT	TR
RT Channelized							
Lane Util	0.306	0.694	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	118	267	81	413	466	459	517
Cap Entry Lane, veh/h	667	740	673	1161	1235	1016	1092
Entry HV Adj Factor	0.978	0.981	0.985	0.980	0.980	0.980	0.981
Flow Entry, veh/h	115	262	80	405	457	450	507
Cap Entry, veh/h	652	726	662	1138	1210	995	1071
V/C Ratio	0.177	0.361	0.121	0.356	0.377	0.452	0.473
Control Delay, s/veh	7.6	9.5	6.8	6.7	6.7	8.8	8.7
LOS	A	A	A	A	A	A	A
95th %tile Queue, veh	1	2	0	2	2	2	3

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	0	3
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	966	825	0	0
Demand Flow Rate, veh/h	985	841	0	0
Vehicles Circulating, veh/h	671	0	1525	841
Vehicles Exiting, veh/h	878	1525	131	0
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	16.2	5.3	0.0	0.0
Approach LOS	C	A	-	-

Lane	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR
RT Channelized				
Lane Util	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328
Entry Flow, veh/h	463	522	395	446
Cap Entry Lane, veh/h	728	803	1350	1420
Entry HV Adj Factor	0.980	0.981	0.982	0.980
Flow Entry, veh/h	454	512	388	437
Cap Entry, veh/h	714	787	1325	1392
V/C Ratio	0.636	0.650	0.293	0.314
Control Delay, s/veh	16.6	15.9	5.3	5.3
LOS	C	C	A	A
95th %tile Queue, veh	5	5	1	1

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1	412	340	2	894	337	163	517
v/c Ratio	0.00	1.06	0.21	0.03	0.96	0.38	0.99	0.45
Control Delay	0.0	106.2	0.3	63.0	51.6	7.2	122.6	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	106.2	0.3	63.0	51.6	7.2	122.6	16.3
Queue Length 50th (ft)	0	~306	0	1	573	31	120	159
Queue Length 95th (ft)	0	#707	0	12	#1266	132	#341	486
Internal Link Dist (ft)	160	615			469			438
Turn Bay Length (ft)			180	120		370	490	
Base Capacity (vph)	536	390	1583	59	929	896	164	1158
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	1.06	0.21	0.03	0.96	0.38	0.99	0.45

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	377	2	313	2	840	317	150	475	1
Future Volume (veh/h)	0	0	1	377	2	313	2	840	317	150	475	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	1	410	2	0	2	894	0	163	516	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	13	390	2		4	920		166	1088	2
Arrive On Green	0.00	0.00	0.01	0.22	0.22	0.00	0.00	0.49	0.00	0.09	0.58	0.58
Sat Flow, veh/h	0	0	1538	1773	9	1585	1781	1870	1585	1781	1866	4
Grp Volume(v), veh/h	0	0	1	412	0	0	2	894	0	163	0	517
Grp Sat Flow(s),veh/h/ln	0	0	1538	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.1	26.0	0.0	0.0	0.1	55.0	0.0	10.8	0.0	18.8
Cycle Q Clear(g_c), s	0.0	0.0	0.1	26.0	0.0	0.0	0.1	55.0	0.0	10.8	0.0	18.8
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	13	392	0		4	920		166	0	1090
V/C Ratio(X)	0.00	0.00	0.08	1.05	0.00		0.52	0.97		0.98	0.00	0.47
Avail Cap(c_a), veh/h	0	0	352	392	0		60	934		166	0	1090
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	58.1	46.1	0.0	0.0	58.9	29.2	0.0	53.5	0.0	14.2
Incr Delay (d2), s/veh	0.0	0.0	2.4	59.4	0.0	0.0	80.6	22.6	0.0	64.6	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.1	25.1	0.0	0.0	0.3	36.5	0.0	12.2	0.0	11.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	60.5	105.4	0.0	0.0	139.5	51.8	0.0	118.0	0.0	14.5
LnGrp LOS	A	A	E	F	A		F	D		F	A	B
Approach Vol, veh/h		1			412	A		896	A		680	
Approach Delay, s/veh		60.5			105.4			52.0			39.3	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	64.1		6.0	5.3	74.9		32.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	11.0	59.0		27.0	4.0	66.0		26.0				
Max Q Clear Time (g_c+I1), s	12.8	57.0		2.1	2.1	20.8		28.0				
Green Ext Time (p_c), s	0.0	1.2		0.0	0.0	3.3		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		58.7	
HCM 6th LOS		E	

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	1	1	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	9.0	183150.0	53470.3	-81.6
Right Corner Quality of Service	E	A	A	F
Ped. Circulation Area (sq.ft)	0.2	8957.0	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	72.5	63.8	63.8	72.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.43	2.84	3.01
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	15	4	7
Total Flow Rate (veh/h)	1	752	1233	680
Effct. Green for Bike (s)	9.1	26.3	59.6	74.3
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	126	363	822	1025
Bicycle Delay (s/bike)	63.7	49.0	25.2	17.3
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.71	3.95	3.38	2.04
Bicycle LOS	C	D	C	B

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	104	202	1374	1093	37
Future Vol, veh/h	11	104	202	1374	1093	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	112	217	1477	1175	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2368	608	1215	0	-	0
Stage 1	1195	-	-	-	-	-
Stage 2	1173	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	29	439	570	-	-	-
Stage 1	250	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	18	439	570	-	-	-
Mov Cap-2 Maneuver	18	-	-	-	-	-
Stage 1	155	-	-	-	-	-
Stage 2	256	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	51.1	1.9	0
HCM LOS	F		

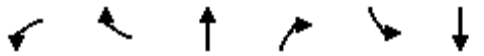
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	570	-	18	439	-	-
HCM Lane V/C Ratio	0.381	-	0.657	0.255	-	-
HCM Control Delay (s)	15.2	-	$ 383	16	-	-
HCM Lane LOS	C	-	F	C	-	-
HCM 95th %tile Q(veh)	1.8	-	1.8	1	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	72366688.0	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	2467	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.99	
Delay for adq Gap	72366688.00	
Avg Ped Delay (s)	72366688.00	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	589.6	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	1093	1374
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.99	0.99
Prob of Blocked Lane	0.91	0.89
Delay for adq Gap	390.04	205.23
Avg Ped Delay (s)	386.87	202.75



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	134	51	1586	142	46	1263
v/c Ratio	0.26	0.18	0.73	0.14	0.24	0.51
Control Delay	27.1	9.0	15.9	3.1	8.6	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	9.0	15.9	3.1	8.6	7.6
Queue Length 50th (ft)	27	0	241	1	4	93
Queue Length 95th (ft)	48	25	#637	34	26	313
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1373	653	2180	982	190	2491
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.08	0.73	0.14	0.24	0.51

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	123	47	1523	136	42	1162
Future Volume (veh/h)	123	47	1523	136	42	1162
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	134	51	1586	142	46	1263
Peak Hour Factor	0.92	0.92	0.96	0.96	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	273	125	2172	937	263	2641
Arrive On Green	0.08	0.08	0.61	0.61	0.04	0.74
Sat Flow, veh/h	3456	1585	3647	1533	1781	3647
Grp Volume(v), veh/h	134	51	1586	142	46	1263
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1533	1781	1777
Q Serve(g_s), s	2.3	1.9	19.4	2.5	0.5	8.8
Cycle Q Clear(g_c), s	2.3	1.9	19.4	2.5	0.5	8.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	273	125	2172	937	263	2641
V/C Ratio(X)	0.49	0.41	0.73	0.15	0.18	0.48
Avail Cap(c_a), veh/h	1618	742	2295	990	315	2869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	27.1	8.5	5.2	7.7	3.2
Incr Delay (d2), s/veh	1.4	2.1	1.5	0.2	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	0.1	9.9	1.1	0.3	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.7	29.2	10.0	5.3	7.8	3.4
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	185		1728			1309
Approach Delay, s/veh	28.8		9.6			3.6
Approach LOS	C		A			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		52.0		9.9	8.2	43.9
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		50.0		29.0	4.0	40.0
Max Q Clear Time (g_c+I1), s		10.8		4.3	2.5	21.4
Green Ext Time (p_c), s		20.8		0.8	0.0	16.4

Intersection Summary	
HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	48.6	72.1	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	7	0	5
Ped. Right-Left Flow Rate (p/h)	4	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	4524.6	6042.2	14580.0
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	F	-	F
Pedestrian Delay (s/p)	45.0	45.0	45.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	2.92	3.17
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	2	8	6
Total Flow Rate (veh/h)	185	1728	1309
Effct. Green for Bike (s)	11.2	45.2	51.0
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	249	1004	1133
Bicycle Delay (s/bike)	34.5	11.2	8.5
Bicycle Compliance	Poor	Fair	Good
Bicycle LOS Score	2.78	2.46	1.61
Bicycle LOS	C	B	B

Intersection	
Int Delay, s/veh	4.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	70	1596	54	48	1246
Future Vol, veh/h	22	70	1596	54	48	1246
Conflicting Peds, #/hr	0	0	0	19	19	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	76	1698	57	51	1326

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2511	897	0	0	1774	0
Stage 1	1746	-	-	-	-	-
Stage 2	765	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	34	243	-	-	163	-
Stage 1	84	-	-	-	-	-
Stage 2	408	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 23	239	-	-	160	-
Mov Cap-2 Maneuver	~ 23	-	-	-	-	-
Stage 1	82	-	-	-	-	-
Stage 2	278	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	126	0	1.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	23	239	160	-
HCM Lane V/C Ratio	-	-	1.04	0.318	0.319	-
HCM Control Delay (s)	-	-	$ 441.2	26.9	37.7	-
HCM Lane LOS	-	-	F	D	E	-
HCM 95th %tile Q(veh)	-	-	3.1	1.3	1.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	5907.9	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	1596	1246
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	1.00	1.00
Prob of Blocked Lane	0.92	0.95
Delay for adq Gap	4784.61	1128.37
Avg Ped Delay (s)	4782.36	1125.53

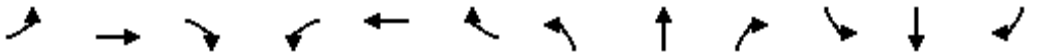
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	8859524096.0
Level of Service	F

Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2842
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.99
Delay for adq Gap	8859524096.00
Avg Ped Delay (s)	8859524096.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	32	83	68	33	152	1802	17	1315	25
v/c Ratio	0.10	0.18	0.20	0.07	0.65	0.56	0.09	0.76	0.03
Control Delay	18.2	3.2	20.0	0.3	28.7	13.1	10.2	21.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	3.2	20.0	0.3	28.7	13.1	10.2	21.9	0.1
Queue Length 50th (ft)	10	0	22	0	15	97	2	174	0
Queue Length 95th (ft)	28	18	49	0	#140	#411	14	#489	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	691	830	707	809	234	3243	191	1732	797
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.10	0.10	0.04	0.65	0.56	0.09	0.76	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	5	76	46	17	30	140	1593	64	16	1223	23
Future Volume (veh/h)	25	5	76	46	17	30	140	1593	64	16	1223	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.97	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	5	83	50	18	33	152	1732	70	17	1315	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	9	585	82	18	578	184	2077	84	139	1334	561
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.05	0.41	0.41	0.01	0.38	0.38
Sat Flow, veh/h	10	25	1562	11	49	1543	1781	5021	203	1781	3554	1494
Grp Volume(v), veh/h	32	0	83	68	0	33	152	1174	628	17	1315	25
Grp Sat Flow(s),veh/h/ln	35	0	1562	60	0	1543	1781	1702	1820	1781	1777	1494
Q Serve(g_s), s	0.3	0.0	2.8	0.3	0.0	1.1	4.0	24.7	24.7	0.5	29.3	0.8
Cycle Q Clear(g_c), s	29.9	0.0	2.8	29.9	0.0	1.1	4.0	24.7	24.7	0.5	29.3	0.8
Prop In Lane	0.84		1.00	0.74		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	96	0	585	101	0	578	184	1408	753	139	1334	561
V/C Ratio(X)	0.33	0.00	0.14	0.68	0.00	0.06	0.83	0.83	0.83	0.12	0.99	0.04
Avail Cap(c_a), veh/h	98	0	586	102	0	579	184	1408	753	185	1334	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	0.0	16.5	32.6	0.0	16.0	21.1	21.0	21.0	18.2	24.7	15.9
Incr Delay (d2), s/veh	2.7	0.0	0.2	17.6	0.0	0.1	27.8	4.8	8.6	0.3	21.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	1.8	3.3	0.0	0.7	5.3	14.4	16.3	0.3	21.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	0.0	16.7	50.2	0.0	16.0	49.0	25.7	29.6	18.5	46.0	15.9
LnGrp LOS	C	A	B	D	A	B	D	C	C	B	D	B
Approach Vol, veh/h		115			101			1954			1357	
Approach Delay, s/veh		21.7			39.1			28.8			45.1	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	36.0		35.0	5.9	39.1		35.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	4.0	30.0		30.0	3.0	31.0		30.0				
Max Q Clear Time (g_c+I1), s	6.0	31.3		31.9	2.5	26.7		31.9				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	4.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			35.1									
HCM 6th LOS			D									

Notes

User approved pedestrian interval to be less than phase max green.

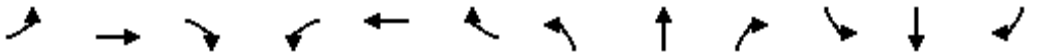
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	11	0	8
Ped. Right-Left Flow Rate (p/h)	1	12	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	196592.6	14366.7	25626.3	28063.1
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	6524.9	849.1	0.0	743.6
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	29.8	29.8	40.0	33.3
Pedestrian Compliance Code	Fair	Fair	Poor	Poor
Pedestrian Crosswalk Score	2.02	1.99	3.29	3.25
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	3	10	9
Total Flow Rate (veh/h)	115	101	1954	1357
Effct. Green for Bike (s)	15.1	15.1	41.3	31.5
Cross Street Width (ft)	80.0	80.0	36.0	40.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	378	378	1032	788
Bicycle Delay (s/bike)	26.3	26.4	9.4	14.8
Bicycle Compliance	Fair	Fair	Good	Fair
Bicycle LOS Score	2.97	2.95	3.19	2.22
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	57	151	329	351	332	114	1301	210	420	943
v/c Ratio	0.26	0.63	0.41	0.85	0.56	0.57	0.78	0.22	0.84	0.75
Control Delay	45.2	51.6	38.2	55.2	8.2	60.7	38.1	2.2	62.6	35.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.2	51.6	38.2	55.2	8.2	60.7	38.1	2.2	62.6	35.5
Queue Length 50th (ft)	37	89	100	212	0	78	298	0	148	291
Queue Length 95th (ft)	76	156	160	#436	85	#174	407	34	#262	424
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	386	398	812	411	592	200	1665	961	499	1309
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.38	0.41	0.85	0.56	0.57	0.78	0.22	0.84	0.72

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	93	46	303	136	492	107	1223	197	399	850	46
Future Volume (veh/h)	52	93	46	303	136	492	107	1223	197	399	850	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.95	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	101	50	329	438	342	114	1301	210	420	895	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	244	158	78	843	442	358	216	1646	874	486	1169	63
Arrive On Green	0.14	0.14	0.14	0.24	0.24	0.24	0.12	0.32	0.32	0.14	0.34	0.34
Sat Flow, veh/h	1781	1153	571	3563	1870	1512	1781	5106	1548	3456	3423	184
Grp Volume(v), veh/h	57	0	151	329	438	342	114	1301	210	420	465	478
Grp Sat Flow(s),veh/h/ln	1781	0	1724	1781	1870	1512	1781	1702	1548	1728	1777	1830
Q Serve(g_s), s	3.1	0.0	9.1	8.5	25.7	24.5	6.6	25.5	7.6	13.1	25.6	25.6
Cycle Q Clear(g_c), s	3.1	0.0	9.1	8.5	25.7	24.5	6.6	25.5	7.6	13.1	25.6	25.6
Prop In Lane	1.00		0.33	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	244	0	236	843	442	358	216	1646	874	486	607	625
V/C Ratio(X)	0.23	0.00	0.64	0.39	0.99	0.96	0.53	0.79	0.24	0.86	0.77	0.77
Avail Cap(c_a), veh/h	389	0	376	843	442	358	216	1672	882	503	663	682
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	0.0	44.9	35.3	41.8	41.4	45.3	33.9	12.4	46.2	32.3	32.3
Incr Delay (d2), s/veh	0.4	0.0	2.1	1.1	40.3	37.3	1.2	4.0	0.7	17.2	8.9	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	0.0	7.2	6.7	22.9	18.2	5.2	15.9	7.7	10.8	17.6	18.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	0.0	47.0	36.4	82.2	78.7	46.5	37.8	13.0	63.4	41.2	41.0
LnGrp LOS	D	A	D	D	F	E	D	D	B	E	D	D
Approach Vol, veh/h		208			1109			1625			1363	
Approach Delay, s/veh		45.8			67.5			35.2			48.0	
Approach LOS		D			E			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.1	17.3	41.5		31.0	19.5	39.4				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	11.0	41.0		26.0	16.0	36.0				
Max Q Clear Time (g_c+I1), s		11.1	8.6	27.6		27.7	15.1	27.5				
Green Ext Time (p_c), s		0.7	0.0	9.9		0.0	0.4	8.0				

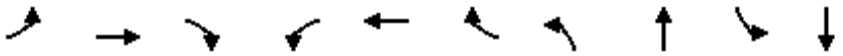
Intersection Summary												
HCM 6th Ctrl Delay			48.1									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	3	3	10
Ped. Right-Left Flow Rate (p/h)	5	1	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53573.6	24545.8	7430.6	21034.9
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1269.2	2452.8	2128.9	362.7
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	49.5	49.5	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.13	3.05	3.22	3.55
Pedestrian Crosswalk LOS	B	C	C	D

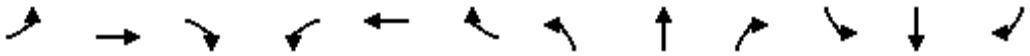
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	14	7	3
Total Flow Rate (veh/h)	208	1012	1625	1363
Effct. Green for Bike (s)	13.9	26.1	36.1	39.7
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	232	435	602	662
Bicycle Delay (s/bike)	47.0	37.0	29.4	26.9
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	3.17	4.42	2.16	2.73
Bicycle LOS	C	D	B	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	292	222	289	230	221	208	463	1149	210	1112
v/c Ratio	0.64	0.60	0.53	0.55	0.63	0.45	0.79	0.62	0.61	0.74
Control Delay	50.1	43.9	7.9	48.5	46.0	8.0	52.3	29.3	53.4	36.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	43.9	7.9	48.5	46.0	8.0	52.3	29.3	53.4	36.6
Queue Length 50th (ft)	92	131	0	73	134	0	147	217	67	232
Queue Length 95th (ft)	158	216	66	125	212	56	#273	339	123	#356
Internal Link Dist (ft)		461			455			697		1255
Turn Bay Length (ft)	240		240	300		230	300		200	
Base Capacity (vph)	549	397	559	1167	652	679	618	1875	377	1510
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.56	0.52	0.20	0.34	0.31	0.75	0.61	0.56	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	204	266	212	203	191	449	1045	70	193	911	112
Future Volume (veh/h)	269	204	266	212	203	191	449	1045	70	193	911	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	222	289	230	221	208	463	1077	72	210	990	122
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	386	395	327	338	368	305	556	1841	123	289	1377	169
Arrive On Green	0.11	0.21	0.21	0.10	0.20	0.20	0.16	0.38	0.38	0.08	0.30	0.30
Sat Flow, veh/h	3456	1870	1550	3456	1870	1551	3456	4882	326	3456	4594	565
Grp Volume(v), veh/h	292	222	289	230	221	208	463	751	398	210	733	379
Grp Sat Flow(s),veh/h/ln	1728	1870	1550	1728	1870	1551	1728	1702	1804	1728	1702	1754
Q Serve(g_s), s	7.5	9.7	16.5	5.9	9.8	11.3	11.8	16.1	16.1	5.4	17.5	17.6
Cycle Q Clear(g_c), s	7.5	9.7	16.5	5.9	9.8	11.3	11.8	16.1	16.1	5.4	17.5	17.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.32
Lane Grp Cap(c), veh/h	386	395	327	338	368	305	556	1283	680	289	1021	526
V/C Ratio(X)	0.76	0.56	0.88	0.68	0.60	0.68	0.83	0.58	0.59	0.73	0.72	0.72
Avail Cap(c_a), veh/h	607	395	327	1289	718	596	683	1382	733	417	1121	578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	32.2	34.9	39.7	33.3	33.9	37.0	22.7	22.7	40.7	28.5	28.5
Incr Delay (d2), s/veh	3.0	1.8	23.6	2.4	1.6	2.7	7.3	1.3	2.4	3.5	3.3	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.0	8.1	13.0	4.7	8.1	7.9	9.1	10.2	10.9	4.2	11.4	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	34.0	58.5	42.1	34.9	36.6	44.3	24.0	25.1	44.3	31.7	34.8
LnGrp LOS	D	C	E	D	C	D	D	C	C	D	C	C
Approach Vol, veh/h		803			659			1612			1322	
Approach Delay, s/veh		45.8			38.0			30.1			34.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.7	33.3	13.9	24.2	12.6	40.4	15.2	22.9
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	18.0	30.0	34.0	17.0	11.0	37.0	16.0	35.0
Max Q Clear Time (g_c+I1), s	13.8	19.6	7.9	18.5	7.4	18.1	9.5	13.3
Green Ext Time (p_c), s	0.8	7.7	1.1	0.0	0.3	12.8	0.7	2.4

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	100.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	6	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	0	5	0	0
Ped. Right-Left Flow Rate (p/h)	2	2	0	5
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	44935.8	7489.3	12811.3	12811.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3628.0	1451.2	0.0	1961.9
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	51.3	51.3	60.0	51.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.77	2.66	3.32	3.28
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	3	3	3
Total Flow Rate (veh/h)	803	659	1612	1322
Effct. Green for Bike (s)	20.2	19.1	37.2	30.1
Cross Street Width (ft)	100.0	99.0	80.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	337	318	620	502
Bicycle Delay (s/bike)	41.6	42.5	28.6	33.7
Bicycle Compliance	Poor	Poor	Fair	Poor
Bicycle LOS Score	4.41	2.88	2.38	1.92
Bicycle LOS	D	C	B	B

Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Group Flow (vph)	57	77	1852	35	1579
v/c Ratio	0.33	0.34	0.70	0.27	0.54
Control Delay	42.1	13.8	10.2	45.0	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.1	13.8	10.2	45.0	4.2
Queue Length 50th (ft)	30	0	326	19	128
Queue Length 95th (ft)	67	40	469	50	200
Internal Link Dist (ft)	233		1200		376
Turn Bay Length (ft)		175		100	
Base Capacity (vph)	753	718	2658	131	2980
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.08	0.11	0.70	0.27	0.53

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	52	71	1656	48	32	1453
Future Volume (veh/h)	52	71	1656	48	32	1453
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	77	1800	52	35	1579
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	145	129	2326	67	76	2734
Arrive On Green	0.08	0.08	0.66	0.66	0.04	0.77
Sat Flow, veh/h	1781	1585	3618	101	1781	3647
Grp Volume(v), veh/h	57	77	903	949	35	1579
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1849	1781	1777
Q Serve(g_s), s	2.1	3.2	23.8	24.3	1.3	12.5
Cycle Q Clear(g_c), s	2.1	3.2	23.8	24.3	1.3	12.5
Prop In Lane	1.00	1.00		0.05	1.00	
Lane Grp Cap(c), veh/h	145	129	1173	1220	76	2734
V/C Ratio(X)	0.39	0.60	0.77	0.78	0.46	0.58
Avail Cap(c_a), veh/h	924	822	1554	1616	160	3664
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.5	30.0	8.0	8.0	31.6	3.2
Incr Delay (d2), s/veh	1.7	4.3	1.7	1.8	4.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	2.4	9.7	10.2	1.1	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.2	34.4	9.7	9.8	35.9	3.4
LnGrp LOS	C	C	A	A	D	A
Approach Vol, veh/h	134		1852			1614
Approach Delay, s/veh	33.0		9.8			4.1
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.4	50.1			57.5	10.2
Change Period (Y+Rc), s	4.5	5.4			5.4	4.7
Max Green Setting (Gmax), s	6.1	59.2			69.8	35.1
Max Q Clear Time (g_c+I1), s	3.3	26.3			14.5	5.2
Green Ext Time (p_c), s	0.0	18.4			18.3	0.4

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

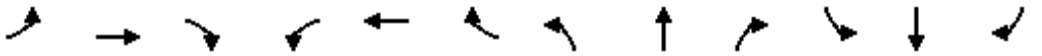
Approach	WB	NB	SB
Crosswalk Length (ft)	35.9	59.9	60.1
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-
Pedestrian Delay (s/p)	57.5	57.5	57.5
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	3.43	3.34
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0
Total Flow Rate (veh/h)	134	1852	1614
Effct. Green for Bike (s)	8.2	62.9	68.9
Cross Street Width (ft)	60.1	35.9	59.9
Through Lanes Number	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	No	No	No
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	143	1094	1198
Bicycle Delay (s/bike)	49.6	11.8	9.2
Bicycle Compliance	Poor	Fair	Good
Bicycle LOS Score	2.70	3.64	3.81
Bicycle LOS	C	D	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	11	113	200	99	103	1705	131	60	1527	44
v/c Ratio	0.12	0.03	0.30	0.80	0.27	0.46	0.78	0.13	0.31	0.73	0.05
Control Delay	32.6	30.2	8.1	60.9	10.7	14.0	20.2	5.7	11.6	19.3	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	47.8	0.0	0.0	0.0	0.0
Total Delay	32.6	30.2	8.1	60.9	10.7	14.0	68.1	5.7	11.6	19.3	1.2
Queue Length 50th (ft)	16	6	0	123	6	17	414	14	10	337	0
Queue Length 95th (ft)	37	19	41	185	45	53	#714	49	31	#580	7
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	413	596	583	447	576	226	2177	971	193	2087	950
Starvation Cap Reductn	0	0	0	0	0	0	699	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.02	0.19	0.45	0.17	0.46	1.15	0.13	0.31	0.73	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	10	104	184	11	80	97	1603	123	57	1451	42
Future Volume (veh/h)	27	10	104	184	11	80	97	1603	123	57	1451	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	11	0	200	12	87	103	1705	131	60	1527	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	314		301	33	238	268	2244	974	218	2220	975
Arrive On Green	0.17	0.17	0.00	0.17	0.17	0.17	0.05	0.63	0.63	0.04	0.62	0.62
Sat Flow, veh/h	1296	1870	1585	1404	196	1419	1781	3554	1543	1781	3554	1560
Grp Volume(v), veh/h	29	11	0	200	0	99	103	1705	131	60	1527	44
Grp Sat Flow(s),veh/h/ln	1296	1870	1585	1404	0	1615	1781	1777	1543	1781	1777	1560
Q Serve(g_s), s	2.0	0.5	0.0	13.9	0.0	5.4	2.0	34.0	3.4	1.2	28.3	1.1
Cycle Q Clear(g_c), s	7.5	0.5	0.0	14.4	0.0	5.4	2.0	34.0	3.4	1.2	28.3	1.1
Prop In Lane	1.00		1.00	1.00		0.88	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	219	314		301	0	271	268	2244	974	218	2220	975
V/C Ratio(X)	0.13	0.03		0.66	0.00	0.36	0.38	0.76	0.13	0.28	0.69	0.05
Avail Cap(c_a), veh/h	416	599		514	0	517	273	2244	974	235	2220	975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.55	0.55	0.55	0.83	0.83	0.83
Uniform Delay (d), s/veh	40.2	34.8	0.0	40.8	0.0	36.9	11.5	13.1	7.4	13.1	12.3	7.2
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.9	0.0	0.3	0.2	1.4	0.2	0.6	1.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.4	0.0	8.5	0.0	3.9	1.2	15.5	1.8	0.9	14.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	34.8	0.0	41.8	0.0	37.2	11.7	14.4	7.6	13.6	13.8	7.3
LnGrp LOS	D	C		D	A	D	B	B	A	B	B	A
Approach Vol, veh/h		40	A		299			1939			1631	
Approach Delay, s/veh		38.8			40.3			13.8			13.6	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	68.5		21.8	9.1	69.1		21.8				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	5.0	47.0		32.0	5.0	47.0		32.0				
Max Q Clear Time (g_c+I1), s	4.0	30.3		16.4	3.2	36.0		9.5				
Green Ext Time (p_c), s	0.0	15.3		0.4	0.0	10.6		0.0				

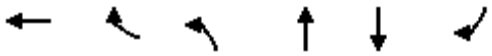
Intersection Summary			
HCM 6th Ctrl Delay		16.0	
HCM 6th LOS		B	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	42.3	42.3	42.3	42.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.49	2.16	3.50	3.32
Pedestrian Crosswalk LOS	B	B	D	C

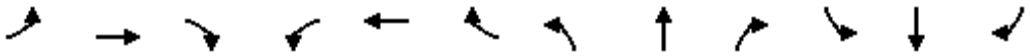
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	4
Total Flow Rate (veh/h)	153	299	1939	1631
Effct. Green for Bike (s)	18.0	18.0	61.5	59.0
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	7.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	360	360	1230	1180
Bicycle Delay (s/bike)	33.6	33.6	7.4	8.4
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.13	3.43	2.19	0.91
Bicycle LOS	C	C	B	A



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	166	335	58	1652	1002	734
v/c Ratio	0.41	0.76	0.48	0.77	0.54	0.67
Control Delay	22.7	27.8	43.4	11.9	11.7	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.7	0.4
Total Delay	22.7	27.8	43.4	11.9	12.3	4.9
Queue Length 50th (ft)	50	74	21	204	133	0
Queue Length 95th (ft)	98	#191	#66	287	187	51
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	411	448	120	2147	1863	1099
Starvation Cap Reductn	0	0	0	0	474	79
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.75	0.48	0.77	0.72	0.72

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



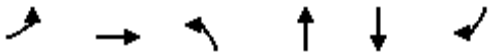
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	151	2	308	53	1520	0	0	922	675
Future Volume (veh/h)	0	0	0	151	2	308	53	1520	0	0	922	675
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				164	2	335	58	1652	0	0	1002	734
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				412	5	371	70	2132	0	0	1746	710
Arrive On Green				0.25	0.25	0.25	0.04	0.60	0.00	0.00	0.49	0.49
Sat Flow, veh/h				1649	20	1485	1668	3647	0	0	3647	1446
Grp Volume(v), veh/h				166	0	335	58	1652	0	0	1002	734
Grp Sat Flow(s),veh/h/ln				1669	0	1485	1668	1777	0	0	1777	1446
Q Serve(g_s), s				5.0	0.0	13.1	2.1	20.8	0.0	0.0	12.0	29.5
Cycle Q Clear(g_c), s				5.0	0.0	13.1	2.1	20.8	0.0	0.0	12.0	29.5
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				417	0	371	70	2132	0	0	1746	710
V/C Ratio(X)				0.40	0.00	0.90	0.83	0.77	0.00	0.00	0.57	1.03
Avail Cap(c_a), veh/h				417	0	371	111	2132	0	0	1746	710
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	0.63	0.63
Uniform Delay (d), s/veh				18.7	0.0	21.8	28.5	9.0	0.0	0.0	10.8	15.3
Incr Delay (d2), s/veh				0.6	0.0	24.4	19.2	2.2	0.0	0.0	0.9	35.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				3.3	0.0	10.9	2.0	8.8	0.0	0.0	6.1	19.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.4	0.0	46.2	47.7	11.2	0.0	0.0	11.7	51.1
LnGrp LOS				B	A	D	D	B	A	A	B	F
Approach Vol, veh/h					501			1710			1736	
Approach Delay, s/veh					37.3			12.4			28.3	
Approach LOS					D			B			C	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	6.5	34.5				41.0		19.0				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	4.0	28.0				36.0		15.0				
Max Q Clear Time (g_c+I1), s	4.1	31.5				22.8		15.1				
Green Ext Time (p_c), s	0.0	0.0				9.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		22.6
HCM 6th LOS		C

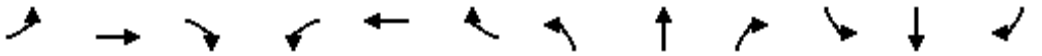
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	630.0	144.0	11011.5	602.9
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3991.1	3858.6	0.0	0.0
Crosswalk Circulation Code	A	A	-	-
Pedestrian Delay (s/p)	21.7	21.7	30.0	30.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.26	2.12	3.13	3.38
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	7
Total Flow Rate (veh/h)	0	501	1710	1736
Effct. Green for Bike (s)	0.0	14.6	36.4	31.6
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	487	1213	1053
Bicycle Delay (s/bike)	0.0	17.2	4.7	6.7
Bicycle Compliance		Fair	Good	Good
Bicycle LOS Score	0.00	2.37	2.34	2.10
Bicycle LOS		B	B	B



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	381	360	158	1038	843	317
v/c Ratio	0.80	0.65	0.50	0.51	0.69	0.29
Control Delay	40.3	21.0	38.1	12.5	28.0	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	21.0	38.1	12.5	28.0	1.1
Queue Length 50th (ft)	184	100	78	177	206	0
Queue Length 95th (ft)	294	195	141	232	274	17
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	531	602	313	2040	1216	1118
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.60	0.50	0.51	0.69	0.28

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	565	0	117	0	0	0	152	996	0	0	776	292
Future Volume (veh/h)	565	0	117	0	0	0	152	996	0	0	776	292
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	733	0	0	0	0	0	158	1038	0	0	843	317
Peak Hour Factor	0.92	0.92	0.92	0.25	0.25	0.25	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	876	491	0	0	2	0	128	2203	0	0	1785	1115
Arrive On Green	0.26	0.00	0.00	0.00	0.00	0.00	0.08	0.62	0.00	0.00	0.50	0.50
Sat Flow, veh/h	3337	1870	0	0	1870	0	1668	3647	0	0	3647	1445
Grp Volume(v), veh/h	733	0	0	0	0	0	158	1038	0	0	843	317
Grp Sat Flow(s),veh/h/ln	1668	1870	0	0	1870	0	1668	1777	0	0	1777	1445
Q Serve(g_s), s	17.6	0.0	0.0	0.0	0.0	0.0	6.5	13.3	0.0	0.0	13.2	5.6
Cycle Q Clear(g_c), s	17.6	0.0	0.0	0.0	0.0	0.0	6.5	13.3	0.0	0.0	13.2	5.6
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	876	491	0	0	2	0	128	2203	0	0	1785	1115
V/C Ratio(X)	0.84	0.00	0.00	0.00	0.00	0.00	1.24	0.47	0.00	0.00	0.47	0.28
Avail Cap(c_a), veh/h	1138	638	0	0	88	0	128	2203	0	0	1785	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.83	0.83
Uniform Delay (d), s/veh	29.6	0.0	0.0	0.0	0.0	0.0	39.3	8.7	0.0	0.0	13.8	3.0
Incr Delay (d2), s/veh	4.4	0.0	0.0	0.0	0.0	0.0	157.3	0.7	0.0	0.0	0.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.8	0.0	0.0	0.0	0.0	0.0	13.6	7.6	0.0	0.0	8.0	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	0.0	0.0	0.0	0.0	0.0	196.5	9.4	0.0	0.0	14.6	3.5
LnGrp LOS	C	A	A	A	A	A	F	A	A	A	B	A
Approach Vol, veh/h		733			0			1196			1160	
Approach Delay, s/veh		34.0			0.0			34.1			11.5	
Approach LOS		C						C			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.0	48.7		26.3		58.7		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	6.5	28.0		29.0		38.0		4.0				
Max Q Clear Time (g_c+I1), s	8.5	15.2		19.6		15.3		0.0				
Green Ext Time (p_c), s	0.0	5.7		2.7		7.4		0.0				

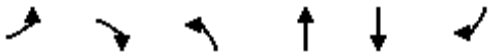
Intersection Summary			
HCM 6th Ctrl Delay		25.6	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	589815.0	7993.3	32378.8	589772.5
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	9841.5	2220.6	0.0	0.0
Crosswalk Circulation Code	A	A	-	-
Pedestrian Delay (s/p)	34.0	34.0	42.5	42.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.57	1.42	2.94	3.13
Pedestrian Crosswalk LOS	C	A	C	C

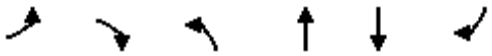
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	8
Total Flow Rate (veh/h)	741	0	1196	1160
Effct. Green for Bike (s)	26.0	4.6	49.0	29.2
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	612	108	1153	687
Bicycle Delay (s/bike)	20.5	38.0	7.6	18.4
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.85	1.39	2.33	2.29
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	688	279	346	261	623	715
v/c Ratio	0.79	0.44	0.89	0.23	0.91	0.74
Control Delay	39.1	6.0	47.1	8.2	45.2	14.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	6.0	47.1	8.2	45.2	14.0
Queue Length 50th (ft)	191	0	137	59	319	190
Queue Length 95th (ft)	#274	60	#298	95	#517	300
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		180	200			
Base Capacity (vph)	867	638	390	1198	749	964
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.44	0.89	0.22	0.83	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	633	257	318	240	598	686
Future Volume (veh/h)	633	257	318	240	598	686
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	688	279	346	261	623	715
Peak Hour Factor	0.92	0.92	0.92	0.92	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	848	405	387	1146	735	992
Arrive On Green	0.25	0.25	0.15	0.61	0.39	0.39
Sat Flow, veh/h	3456	1648	1781	1870	1870	1536
Grp Volume(v), veh/h	688	279	346	261	623	715
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1536
Q Serve(g_s), s	15.8	13.0	10.2	5.3	25.6	26.6
Cycle Q Clear(g_c), s	15.8	13.0	10.2	5.3	25.6	26.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	848	405	387	1146	735	992
V/C Ratio(X)	0.81	0.69	0.90	0.23	0.85	0.72
Avail Cap(c_a), veh/h	900	429	438	1240	775	1025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	28.9	19.8	7.4	23.3	10.3
Incr Delay (d2), s/veh	6.8	6.8	19.0	0.1	8.7	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.2	1.4	9.4	3.1	17.6	21.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	36.9	35.7	38.8	7.5	32.1	12.9
LnGrp LOS	D	D	D	A	C	B
Approach Vol, veh/h	967			607	1338	
Approach Delay, s/veh	36.5			25.3	21.8	
Approach LOS	D			C	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.7		26.7	18.5	39.2
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		56.0		22.0	15.0	35.0
Max Q Clear Time (g_c+I1), s		7.3		17.8	12.2	28.6
Green Ext Time (p_c), s		1.9		2.9	0.4	4.6

Intersection Summary		
HCM 6th Ctrl Delay		27.4
HCM 6th LOS		C

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196589.4	0.0	196573.9
Right Corner Quality of Service	A	-	A
Ped. Circulation Area (sq.ft)	1061.9	0.0	0.0
Crosswalk Circulation Code	A	-	-
Pedestrian Delay (s/p)	37.4	37.4	45.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.94	2.68	2.88
Pedestrian Crosswalk LOS	C	C	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	0	8	7
Total Flow Rate (veh/h)	967	607	1338
Effct. Green for Bike (s)	22.1	53.2	32.1
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	491	1182	713
Bicycle Delay (s/bike)	25.6	7.6	18.7
Bicycle Compliance	Fair	Good	Fair
Bicycle LOS Score	1.84	2.28	3.48
Bicycle LOS	B	B	C

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	153	677	232	0	1323
Future Vol, veh/h	0	153	677	232	0	1323
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	95	95	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	166	713	244	0	1423

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	479	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	533	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	533	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	533	-
HCM Lane V/C Ratio	-	-	0.312	-
HCM Control Delay (s)	-	-	14.8	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	1.3	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	69081.5
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2000
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.93
Delay for adq Gap	69083.27
Avg Ped Delay (s)	69081.48

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	69081.5
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2000
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.93
Delay for adq Gap	69083.27
Avg Ped Delay (s)	69081.48

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	727	1035	174	1048
v/c Ratio	0.77	0.53	0.72	0.52
Control Delay	24.8	10.0	32.8	10.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	24.8	10.0	32.8	10.4
Queue Length 50th (ft)	120	113	45	120
Queue Length 95th (ft)	177	202	#175	211
Internal Link Dist (ft)	742	269		1054
Turn Bay Length (ft)			170	
Base Capacity (vph)	1323	2197	272	2241
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.55	0.47	0.64	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	423	246	825	159	160	964
Future Volume (vph)	423	246	825	159	160	964
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		6.0		6.0	6.0
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.94		0.98		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3276		3441		1770	3539
Flt Permitted	0.97		1.00		0.23	1.00
Satd. Flow (perm)	3276		3441		430	3539
Peak-hour factor, PHF	0.92	0.92	0.95	0.95	0.92	0.92
Adj. Flow (vph)	460	267	868	167	174	1048
RTOR Reduction (vph)	94	0	19	0	0	0
Lane Group Flow (vph)	633	0	1016	0	174	1048
Confl. Peds. (#/hr)	1	6				
Confl. Bikes (#/hr)				3		
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	16.9		36.9		36.9	36.9
Effective Green, g (s)	16.9		36.9		36.9	36.9
Actuated g/C Ratio	0.26		0.57		0.57	0.57
Clearance Time (s)	5.0		6.0		6.0	6.0
Vehicle Extension (s)	2.0		5.5		5.5	5.5
Lane Grp Cap (vph)	854		1959		244	2015
v/s Ratio Prot	c0.19		0.30			0.30
v/s Ratio Perm					c0.40	
v/c Ratio	0.74		0.52		0.71	0.52
Uniform Delay, d1	21.9		8.5		10.1	8.5
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	3.1		0.5		12.5	0.5
Delay (s)	25.0		9.1		22.6	9.1
Level of Service	C		A		C	A
Approach Delay (s)	25.0		9.1			11.0
Approach LOS	C		A			B

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	64.8	Sum of lost time (s)	11.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

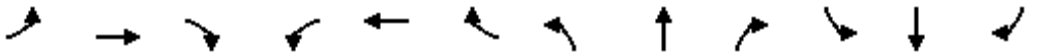
Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	0	0	5
Ped. Right-Left Flow Rate (p/h)	0	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	5368.8	32365.9	4623.2
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	17086.7	2191.0
Crosswalk Circulation Code	-	A	A
Pedestrian Delay (s/p)	29.9	27.3	29.9
Pedestrian Compliance Code	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.32	3.13	2.91
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	7	7
Total Flow Rate (veh/h)	727	1035	1222
Effct. Green for Bike (s)	16.9	36.9	36.9
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	451	984	984
Bicycle Delay (s/bike)	22.6	9.7	9.7
Bicycle Compliance	Fair	Good	Good
Bicycle LOS Score	1.58	2.05	2.49
Bicycle LOS	B	B	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	25	20	303	310	662	26	811	386	440	852
v/c Ratio	0.13	0.07	0.72	0.73	0.56	0.23	0.74	0.37	0.74	0.49
Control Delay	34.9	0.5	41.8	42.4	4.7	47.6	32.8	1.9	43.7	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	0.5	41.8	42.4	4.7	47.6	32.8	1.9	43.7	19.2
Queue Length 50th (ft)	13	0	150	154	0	13	201	0	115	143
Queue Length 95th (ft)	34	0	#366	#376	50	46	#407	30	#255	340
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		160	165	
Base Capacity (vph)	612	614	463	465	1229	113	1117	1074	593	1722
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.65	0.67	0.54	0.23	0.73	0.36	0.74	0.49

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



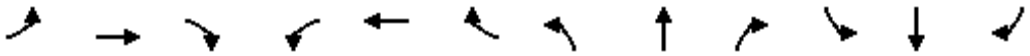
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	10	18	547	17	609	25	770	367	405	740	44
Future Volume (vph)	13	10	18	547	17	609	25	770	367	405	740	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5	
Lane Util. Factor		1.00	1.00	0.95	0.95	0.88	1.00	0.95	1.00	0.97	0.95	
Frpb, ped/bikes		1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected		0.97	1.00	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1812	1551	1681	1690	2721	1770	3539	1560	3433	3504	
Flt Permitted		0.97	1.00	0.95	0.96	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1812	1551	1681	1690	2721	1770	3539	1560	3433	3504	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92
Adj. Flow (vph)	14	11	20	595	18	662	26	811	386	440	804	48
RTOR Reduction (vph)	0	0	18	0	0	504	0	0	169	0	3	0
Lane Group Flow (vph)	0	25	2	303	310	158	26	811	217	440	849	0
Confl. Peds. (#/hr)	1		6	6		1	3		9	9		3
Confl. Bikes (#/hr)			1			1			7			3
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)		6.5	6.5	20.5	20.5	20.5	1.8	27.8	48.3	14.2	40.2	
Effective Green, g (s)		6.5	6.5	20.5	20.5	20.5	1.8	27.8	48.3	14.2	40.2	
Actuated g/C Ratio		0.08	0.08	0.24	0.24	0.24	0.02	0.32	0.56	0.17	0.47	
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5	
Vehicle Extension (s)		2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0	3.5	5.0	
Lane Grp Cap (vph)		136	117	400	402	648	37	1144	876	566	1637	
v/s Ratio Prot		c0.01		0.18	c0.18		0.01	c0.23	0.06	c0.13	0.24	
v/s Ratio Perm			0.00			0.06			0.08			
v/c Ratio		0.18	0.01	0.76	0.77	0.24	0.70	0.71	0.25	0.78	0.52	
Uniform Delay, d1		37.3	36.8	30.4	30.6	26.5	41.8	25.5	9.6	34.4	16.1	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2	0.0	7.1	8.1	0.1	39.1	2.6	0.1	6.8	0.6	
Delay (s)		37.5	36.8	37.6	38.7	26.6	81.0	28.1	9.7	41.2	16.7	
Level of Service		D	D	D	D	C	F	C	A	D	B	
Approach Delay (s)		37.2			32.1			23.4			25.0	
Approach LOS		D			C			C			C	

Intersection Summary				
HCM 2000 Control Delay	27.0	HCM 2000 Level of Service	C	
HCM 2000 Volume to Capacity ratio	0.69			
Actuated Cycle Length (s)	86.0	Sum of lost time (s)	17.0	
Intersection Capacity Utilization	65.9%	ICU Level of Service	C	
Analysis Period (min)	15			

c Critical Lane Group

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	6
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	3	6	1
Ped. Right-Left Flow Rate (p/h)	1	6	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	1	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	58942.3	53583.9	36852.9	117940.6
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3187.2	0.0	1599.1	3760.7
Crosswalk Circulation Code	A	F	A	A
Pedestrian Delay (s/p)	44.8	44.8	44.8	44.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	3.04	3.52	3.07
Pedestrian Crosswalk LOS	B	C	D	C

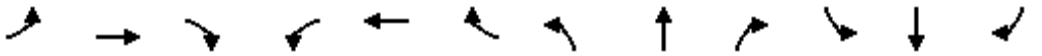
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	8	3	10
Total Flow Rate (veh/h)	45	1275	1223	1292
Effct. Green for Bike (s)	8.8	20.5	25.5	40.2
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	5.5	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	168	390	486	766
Bicycle Delay (s/bike)	44.1	34.1	30.1	20.1
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.67	3.49	2.26	2.30
Bicycle LOS	C	C	B	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	97	460	218	229	978	289	599	966	116	226	672	158
v/c Ratio	0.61	0.59	0.40	0.61	0.94	0.45	0.90	0.80	0.18	0.72	0.79	0.28
Control Delay	59.3	33.7	4.7	44.9	47.6	7.7	53.9	31.8	0.9	53.4	38.7	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.3	33.7	4.7	44.9	47.6	7.7	53.9	31.8	0.9	53.4	38.7	1.4
Queue Length 50th (ft)	28	121	0	64	286	15	174	257	0	65	187	0
Queue Length 95th (ft)	#63	171	37	102	#416	78	#274	334	4	#118	252	2
Internal Link Dist (ft)		1706			363			1325			863	
Turn Bay Length (ft)	250		250	120		200	300		120	210		120
Base Capacity (vph)	160	867	575	400	1074	649	681	1280	683	321	909	585
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.53	0.38	0.57	0.91	0.45	0.88	0.75	0.17	0.70	0.74	0.27

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	423	201	211	900	266	551	889	107	208	618	145
Future Volume (veh/h)	89	423	201	211	900	266	551	889	107	208	618	145
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	460	218	229	978	289	599	966	116	226	672	158
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	890	396	309	1046	465	665	1187	518	300	811	352
Arrive On Green	0.05	0.25	0.25	0.09	0.29	0.29	0.19	0.33	0.33	0.09	0.23	0.23
Sat Flow, veh/h	3456	3554	1581	3456	3554	1582	3456	3554	1549	3456	3554	1543
Grp Volume(v), veh/h	97	460	218	229	978	289	599	966	116	226	672	158
Grp Sat Flow(s),veh/h/ln	1728	1777	1581	1728	1777	1582	1728	1777	1549	1728	1777	1543
Q Serve(g_s), s	2.4	9.8	10.5	5.7	23.5	13.8	14.9	21.8	4.7	5.6	15.8	7.7
Cycle Q Clear(g_c), s	2.4	9.8	10.5	5.7	23.5	13.8	14.9	21.8	4.7	5.6	15.8	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	890	396	309	1046	465	665	1187	518	300	811	352
V/C Ratio(X)	0.62	0.52	0.55	0.74	0.94	0.62	0.90	0.81	0.22	0.75	0.83	0.45
Avail Cap(c_a), veh/h	158	890	396	394	1053	469	670	1256	547	315	891	387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	28.3	28.6	39.0	30.1	26.7	34.6	26.7	21.0	39.2	32.2	29.1
Incr Delay (d2), s/veh	7.0	0.2	1.0	5.5	14.4	1.8	15.0	4.2	0.3	8.8	6.4	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	7.1	7.0	4.6	17.0	8.9	11.7	14.2	3.0	4.8	11.5	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	28.6	29.6	44.4	44.6	28.6	49.6	30.9	21.3	48.0	38.6	30.2
LnGrp LOS	D	C	C	D	D	C	D	C	C	D	D	C
Approach Vol, veh/h		775			1496			1681			1056	
Approach Delay, s/veh		31.3			41.5			36.9			39.3	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	35.3	11.8	28.0	21.9	26.0	8.0	31.8
Change Period (Y+Rc), s	5.0	6.0	4.0	* 6	5.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	8.0	31.0	10.0	* 21	17.0	22.0	4.0	26.0
Max Q Clear Time (g_c+I1), s	7.6	23.8	7.7	12.5	16.9	17.8	4.4	25.5
Green Ext Time (p_c), s	0.0	4.4	0.2	1.8	0.0	2.2	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	37.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

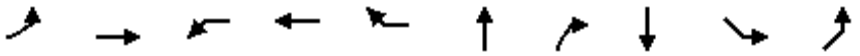
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	90.0	90.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	7	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	1	0	0	1
Ped. Right-Left Flow Rate (p/h)	2	3	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	17982.7	22456.7	17982.7	22489.2
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	5216.7	5320.6	7235.5	14622.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	34.7	34.7	34.7	34.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.16	3.07	3.18	3.15
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	15	8
Total Flow Rate (veh/h)	775	1496	1681	1056
Effct. Green for Bike (s)	19.1	25.5	29.6	20.8
Cross Street Width (ft)	80.0	80.0	80.0	80.0
Through Lanes Number	2	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	424	567	658	462
Bicycle Delay (s/bike)	27.9	23.1	20.4	26.7
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	2.14	2.73	2.88	2.37
Bicycle LOS	B	C	C	B

Intersection	
Intersection Delay, s/veh	21.9
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	0
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	860	1742	202	0
Demand Flow Rate, veh/h	897	1820	205	0
Vehicles Circulating, veh/h	0	357	897	1299
Vehicles Exiting, veh/h	1299	745	0	878
Ped Vol Crossing Leg, #/h	5	5	5	5
Ped Cap Adj	0.994	0.996	1.000	1.000
Approach Delay, s/veh	5.7	31.5	7.8	0.0
Approach LOS	A	D	A	-

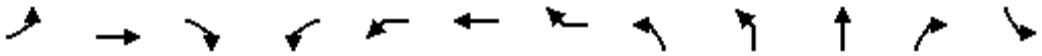
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	R
Assumed Moves	LT	TR	LT	TR	LT	R
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	0.400	0.600
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	422	475	855	965	82	123
Cap Entry Lane, veh/h	1350	1420	972	1048	591	662
Entry HV Adj Factor	0.958	0.959	0.958	0.957	0.986	0.984
Flow Entry, veh/h	404	456	819	923	81	121
Cap Entry, veh/h	1285	1355	927	999	583	652
V/C Ratio	0.314	0.336	0.883	0.924	0.139	0.186
Control Delay, s/veh	5.7	5.7	29.3	33.5	7.9	7.7
LOS	A	A	D	D	A	A
95th %tile Queue, veh	1	2	12	14	0	1



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	34	777	168	1081	321	29	48	221	20	20
v/c Ratio	0.35	0.70	0.70	0.68	0.47	0.09	0.09	0.71	0.14	0.06
Control Delay	54.2	31.2	54.9	26.4	25.8	27.4	0.4	43.0	44.6	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	31.2	54.9	26.4	25.8	27.4	0.4	43.0	44.6	0.3
Queue Length 50th (ft)	14	131	65	177	88	9	0	81	8	0
Queue Length 95th (ft)	#66	#396	#252	#568	#330	38	0	217	38	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	96	1154	240	1593	683	537	690	496	141	441
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.67	0.70	0.68	0.47	0.05	0.07	0.45	0.14	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (vph)	31	712	3	79	81	1027	305	8	12	6	44	156
Future Volume (vph)	31	712	3	79	81	1027	305	8	12	6	44	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0			5.0	5.0	
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00			1.00	1.00	
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.96			1.00	0.97	
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00			1.00	1.00	
Frt	1.00	1.00			1.00	1.00	0.85			1.00	0.85	
Flt Protected	0.95	1.00			0.95	1.00	1.00			0.96	1.00	
Satd. Flow (prot)	1770	3537			1770	3539	1528			1789	1536	
Flt Permitted	0.95	1.00			0.95	1.00	1.00			0.79	1.00	
Satd. Flow (perm)	1770	3537			1770	3539	1528			1464	1536	
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	774	3	83	85	1081	321	9	13	7	48	170
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	38	0
Lane Group Flow (vph)	34	777	0	0	168	1081	321	0	0	29	10	0
Confl. Peds. (#/hr)			4				1	2	2		12	12
Confl. Bikes (#/hr)			1				14				1	
Turn Type	Prot	NA		Prot	Prot	NA	Perm	Perm	Perm	NA	Perm	Perm
Protected Phases	5	2		1	1	6				8		
Permitted Phases							6	8	8		8	4
Actuated Green, G (s)	2.2	27.6			10.6	35.0	35.0			18.0	18.0	
Effective Green, g (s)	2.2	27.6			10.6	35.0	35.0			18.0	18.0	
Actuated g/C Ratio	0.03	0.32			0.12	0.40	0.40			0.21	0.21	
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0			5.0	5.0	
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0			3.5	3.5	
Lane Grp Cap (vph)	44	1124			216	1427	616			303	318	
v/s Ratio Prot	0.02	0.22			c0.09	c0.31						
v/s Ratio Perm							0.21			0.02	0.01	
v/c Ratio	0.77	0.69			0.78	0.76	0.52			0.10	0.03	
Uniform Delay, d1	42.1	25.9			37.0	22.3	19.6			27.8	27.4	
Progression Factor	1.00	1.00			1.00	1.00	1.00			1.00	1.00	
Incremental Delay, d2	53.1	2.4			14.7	2.8	1.5			0.2	0.0	
Delay (s)	95.2	28.2			51.7	25.1	21.1			28.0	27.5	
Level of Service	F	C			D	C	C			C	C	
Approach Delay (s)		31.0				27.1				27.7		
Approach LOS		C				C				C		

Intersection Summary			
HCM 2000 Control Delay	30.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	86.8	Sum of lost time (s)	27.0
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

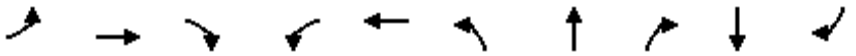
c Critical Lane Group

Movement	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations											
Traffic Volume (vph)	5	22	20	5	5	5	5	5	5	5	5
Future Volume (vph)	5	22	20	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0				5.0				5.0		
Lane Util. Factor	1.00				1.00				1.00		
Frpb, ped/bikes	1.00				1.00				1.00		
Flpb, ped/bikes	0.99				1.00				1.00		
Frt	0.97				0.93				0.93		
Flt Protected	0.96				0.98				0.98		
Satd. Flow (prot)	1723				1695				1695		
Flt Permitted	0.76				1.00				0.98		
Satd. Flow (perm)	1353				1737				1695		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	24	22	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	221	0	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)		2	2								
Confl. Bikes (#/hr)											
Turn Type	NA			Perm	Prot			Perm	Prot		
Protected Phases	4				7				3		
Permitted Phases				7				3			
Actuated Green, G (s)	18.0				1.9				2.7		
Effective Green, g (s)	18.0				1.9				2.7		
Actuated g/C Ratio	0.21				0.02				0.03		
Clearance Time (s)	5.0				5.0				5.0		
Vehicle Extension (s)	3.5				2.0				1.5		
Lane Grp Cap (vph)	280				38				52		
v/s Ratio Prot											
v/s Ratio Perm	c0.16				c0.01				0.00		
v/c Ratio	0.79				0.53				0.01		
Uniform Delay, d1	32.6				42.0				40.8		
Progression Factor	1.00				1.00				1.00		
Incremental Delay, d2	14.1				5.9				0.0		
Delay (s)	46.7				47.9				40.8		
Level of Service	D				D				D		
Approach Delay (s)	46.7				47.9				40.8		
Approach LOS	D				D				D		

Intersection Summary

Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29673.7	11556.4	0.0	72900.0	24282.5
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2869.7	5032.2	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	42.1	42.1	42.1	42.1	42.1	42.1
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.88	3.32	2.01	1.87	1.87	1.78
Pedestrian Crosswalk LOS	C	C	B	B	B	B

Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	811	1570	77	221	20	20
Effct. Green for Bike (s)	24.6	35.0	18.0	18.0	6.4	7.2
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	469	667	343	343	122	137
Bicycle Delay (s/bike)	30.9	23.5	36.3	36.1	46.3	45.5
Bicycle Compliance	Poor	Fair	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.73	1.95	2.78	2.29	2.62	2.20
Bicycle LOS	C	B	C	B	C	B

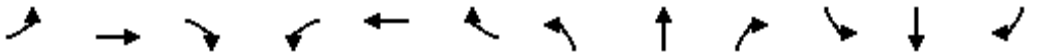


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	33	650	400	343	893	368	375	429	43	32
v/c Ratio	0.33	0.63	0.67	1.42	0.49	0.79	0.80	0.52	0.21	0.11
Control Delay	55.4	34.0	21.4	247.3	27.7	44.5	45.4	4.7	39.0	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.4	34.0	21.4	247.3	27.7	44.5	45.4	4.7	39.0	0.7
Queue Length 50th (ft)	18	166	87	~136	154	192	196	0	23	0
Queue Length 95th (ft)	#58	#334	#289	#295	278	#441	#451	65	54	0
Internal Link Dist (ft)		217			575		1379		108	
Turn Bay Length (ft)	145		90	310		150				50
Base Capacity (vph)	103	1036	604	241	1832	590	592	825	626	640
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.63	0.66	1.42	0.49	0.62	0.63	0.52	0.07	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	598	368	316	783	39	677	6	395	37	3	29
Future Volume (veh/h)	30	598	368	316	783	39	677	6	395	37	3	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	650	400	343	851	42	741	0	429	40	3	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	1050	458	249	1701	84	1066	0	582	75	6	70
Arrive On Green	0.03	0.30	0.30	0.07	0.34	0.34	0.30	0.00	0.30	0.05	0.05	0.05
Sat Flow, veh/h	1781	3554	1549	3456	4973	245	3563	0	1563	1663	125	1549
Grp Volume(v), veh/h	33	650	400	343	582	311	741	0	429	43	0	32
Grp Sat Flow(s),veh/h/ln	1781	1777	1549	1728	1702	1814	1781	0	1563	1787	0	1549
Q Serve(g_s), s	1.5	13.1	20.4	6.0	11.3	11.4	15.3	0.0	19.8	2.0	0.0	1.7
Cycle Q Clear(g_c), s	1.5	13.1	20.4	6.0	11.3	11.4	15.3	0.0	19.8	2.0	0.0	1.7
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	0.93		1.00
Lane Grp Cap(c), veh/h	46	1050	458	249	1164	620	1066	0	582	81	0	70
V/C Ratio(X)	0.72	0.62	0.87	1.38	0.50	0.50	0.70	0.00	0.74	0.53	0.00	0.46
Avail Cap(c_a), veh/h	107	1066	465	249	1164	620	1282	0	677	643	0	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.3	25.3	27.9	38.7	21.8	21.8	25.8	0.0	22.7	38.9	0.0	38.8
Incr Delay (d2), s/veh	11.0	2.7	20.0	193.9	1.5	2.9	1.1	0.0	3.3	3.3	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	9.3	14.5	15.5	7.9	8.6	10.3	0.0	11.5	1.7	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	28.1	47.9	232.5	23.3	24.7	27.0	0.0	26.0	42.2	0.0	41.6
LnGrp LOS	D	C	D	F	C	C	C	A	C	D	A	D
Approach Vol, veh/h		1083			1236			1170			75	
Approach Delay, s/veh		36.1			81.7			26.6			41.9	
Approach LOS		D			F			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	30.6		9.8	8.1	34.5		31.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	6.0	25.0		30.0	5.0	26.0		30.0				
Max Q Clear Time (g_c+I1), s	8.0	22.4		4.0	3.5	13.4		21.8				
Green Ext Time (p_c), s	0.0	2.2		0.2	0.0	8.9		3.1				

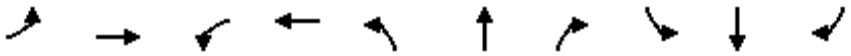
Intersection Summary			
HCM 6th Ctrl Delay		48.9	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	105.0	120.0	90.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	8	5	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	1	0	1	1
Ped. Right-Left Flow Rate (p/h)	0	0	1	2
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	40	25
Right Corner Area per Ped (sq.ft)	29980.4	29980.4	44970.6	22455.9
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	12748.1	0.0	5948.2	3716.7
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	47.0	47.0	47.0	47.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.20	3.14	2.86	2.00
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	10	15	4	3
Total Flow Rate (veh/h)	1083	1236	1172	75
Effct. Green for Bike (s)	25.7	32.2	24.7	10.1
Cross Street Width (ft)	80.0	55.0	97.0	100.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	447	560	430	176
Bicycle Delay (s/bike)	34.8	30.0	35.5	47.9
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.18	1.79	3.69	1.93
Bicycle LOS	B	B	D	B

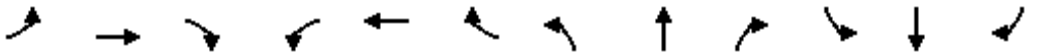


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	1142	181	812	318	322	239	19	26	25
v/c Ratio	0.33	0.58	0.74	0.31	0.81	0.82	0.31	0.13	0.19	0.10
Control Delay	51.8	28.0	69.3	14.8	52.0	52.4	3.1	42.0	43.5	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	28.0	69.3	14.8	52.0	52.4	3.1	42.0	43.5	0.7
Queue Length 50th (ft)	25	226	115	64	193	196	0	12	16	0
Queue Length 95th (ft)	59	304	m#197	161	#340	#344	42	32	40	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	123	1953	262	2604	425	427	794	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.58	0.69	0.31	0.75	0.75	0.30	0.07	0.10	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	978	118	174	764	15	562	27	220	19	22	23
Future Volume (veh/h)	38	978	118	174	764	15	562	27	220	19	22	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	40	1019	123	181	796	16	632	0	239	21	24	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	51	2078	250	208	2821	57	748	0	516	70	69	61
Arrive On Green	0.03	0.45	0.45	0.25	1.00	1.00	0.22	0.00	0.22	0.04	0.04	0.04
Sat Flow, veh/h	1781	4600	554	1668	5149	103	3337	0	1479	1781	1752	1549
Grp Volume(v), veh/h	40	753	389	181	526	286	632	0	239	21	24	25
Grp Sat Flow(s),veh/h/ln	1781	1702	1750	1668	1702	1848	1668	0	1479	1781	1752	1549
Q Serve(g_s), s	2.2	15.6	15.6	10.4	0.0	0.0	18.1	0.0	12.6	1.1	1.3	1.6
Cycle Q Clear(g_c), s	2.2	15.6	15.6	10.4	0.0	0.0	18.1	0.0	12.6	1.1	1.3	1.6
Prop In Lane	1.00		0.32	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	51	1538	791	208	1865	1013	748	0	516	70	69	61
V/C Ratio(X)	0.79	0.49	0.49	0.87	0.28	0.28	0.85	0.00	0.46	0.30	0.35	0.41
Avail Cap(c_a), veh/h	107	1538	791	250	1865	1013	868	0	570	285	280	248
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.69	0.69	0.69	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	19.3	19.3	36.8	0.0	0.0	37.1	0.0	25.3	46.7	46.8	46.9
Incr Delay (d2), s/veh	19.3	0.9	1.8	17.4	0.3	0.5	6.9	0.0	0.6	2.3	3.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	9.7	10.2	7.6	0.1	0.2	12.6	0.0	7.9	1.0	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	20.2	21.1	54.2	0.3	0.5	44.0	0.0	25.9	49.0	49.7	51.2
LnGrp LOS	E	C	C	D	A	A	D	A	C	D	D	D
Approach Vol, veh/h		1182			993			871			70	
Approach Delay, s/veh		22.1			10.2			39.0			50.0	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.5	49.2		8.0	6.8	58.8		26.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	15.0	27.0		16.0	6.0	36.0		26.0				
Max Q Clear Time (g_c+I1), s	12.4	17.6		3.6	4.2	2.0		20.1				
Green Ext Time (p_c), s	0.2	5.0		0.2	0.0	6.1		2.3				

Intersection Summary			
HCM 6th Ctrl Delay		23.7	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

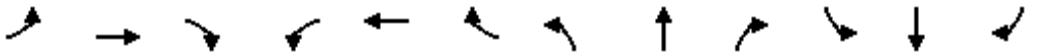
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	88.4	95.5	49.4	54.8
Crosswalk Width (ft)	10.0	10.0	10.0	10.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	11.0	11.0	10.0	15.0
Right Corner Size B (ft)	10.0	11.0	11.0	14.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	110.00	121.00	110.00	210.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	0
Ped. Right-Left Flow Rate (p/h)	1	0	3	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	3
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	12355.6	0.0	19768.9	31482.7
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	3316.1	0.0	1593.1	0.0
Crosswalk Circulation Code	A	-	A	-
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.03	2.98	2.79	2.19
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	8	9	1	5
Total Flow Rate (veh/h)	1182	993	879	70
Effct. Green for Bike (s)	39.3	51.4	25.2	8.5
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	786	1028	504	170
Bicycle Delay (s/bike)	18.5	11.9	28.0	42.0
Bicycle Compliance	Fair	Fair	Fair	Poor
Bicycle LOS Score	1.92	1.81	3.35	2.99
Bicycle LOS	B	B	C	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	594	708	1223	126	117
v/c Ratio	0.98	0.26	0.69	0.48	0.28
Control Delay	54.9	1.5	21.6	41.6	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.9	1.5	21.6	41.6	1.7
Queue Length 50th (ft)	200	13	257	77	0
Queue Length 95th (ft)	#302	37	#562	102	0
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	604	2682	1779	557	636
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.98	0.26	0.69	0.23	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	552	658	0	0	849	276	120	0	111	0	0	0
Future Volume (veh/h)	552	658	0	0	849	276	120	0	111	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	594	708	0	0	923	300	126	0	117			
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.95	0.95	0.95			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1350	2868	0	0	919	297	188	0	165			
Arrive On Green	0.83	1.00	0.00	0.00	0.35	0.35	0.11	0.00	0.11			
Sat Flow, veh/h	3237	3647	0	0	2718	850	1668	0	1460			
Grp Volume(v), veh/h	594	708	0	0	624	599	126	0	117			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1697	1668	0	1460			
Q Serve(g_s), s	4.8	0.0	0.0	0.0	35.0	35.0	7.2	0.0	7.7			
Cycle Q Clear(g_c), s	4.8	0.0	0.0	0.0	35.0	35.0	7.2	0.0	7.7			
Prop In Lane	1.00		0.00	0.00		0.50	1.00		1.00			
Lane Grp Cap(c), veh/h	1350	2868	0	0	622	594	188	0	165			
V/C Ratio(X)	0.44	0.25	0.00	0.00	1.00	1.01	0.67	0.00	0.71			
Avail Cap(c_a), veh/h	1350	2868	0	0	622	594	567	0	496			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.83	0.83	0.00	0.00	0.75	0.75	1.00	0.00	1.00			
Uniform Delay (d), s/veh	5.2	0.0	0.0	0.0	32.5	32.5	42.6	0.0	42.8			
Incr Delay (d2), s/veh	0.2	0.2	0.0	0.0	31.9	34.2	4.1	0.0	5.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.2	0.1	0.0	0.0	26.2	25.7	5.7	0.0	5.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.4	0.2	0.0	0.0	64.4	66.7	46.6	0.0	48.3			
LnGrp LOS	A	A	A	A	F	F	D	A	D			
Approach Vol, veh/h		1302			1223			243				
Approach Delay, s/veh		2.6			65.6			47.4				
Approach LOS		A			E			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.7			45.7	39.0		15.3				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			19.0	35.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			6.8	37.0		9.7				
Green Ext Time (p_c), s		5.8			2.4	0.0		1.2				
Intersection Summary												
HCM 6th Ctrl Delay			34.3									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	73.5	41.5	30.4
Crosswalk Width (ft)	10.0	11.0	10.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	8.0	9.0	19.0	0.1
Right Corner Size B (ft)	9.0	10.0	19.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	72.00	90.00	361.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	2	0
Ped. Right-Left Flow Rate (p/h)	0	1	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21565.5	40474.1	81212.1	-53.5
Right Corner Quality of Service	A	A	A	F
Ped. Circulation Area (sq.ft)	0.0	7459.0	2974.4	0.3
Crosswalk Circulation Code	-	A	A	F
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.91	2.74	1.96	2.16
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	11	1	1
Total Flow Rate (veh/h)	1302	1223	243	0
Effct. Green for Bike (s)	75.8	52.8	16.2	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1516	1056	324	0
Bicycle Delay (s/bike)	2.9	11.2	35.1	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.19	2.05	2.13	0.00
Bicycle LOS	B	B	B	

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	1	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	464	243	1576	868
Demand Flow Rate, veh/h	473	248	1607	886
Vehicles Circulating, veh/h	791	1636	287	515
Vehicles Exiting, veh/h	610	258	977	1369
Ped Vol Crossing Leg, #/h	5	5	0	0
Ped Cap Adj	0.999	1.000	1.000	1.000
Approach Delay, s/veh	9.9	35.0	16.5	10.9
Approach LOS	A	E	C	B

Lane	Left	Right	Left	Left	Right	Left	Right
Designated Moves	LT	R	LTR	LT	TR	LT	TR
Assumed Moves	LT	R	LTR	LT	TR	LT	TR
RT Channelized							
Lane Util	0.518	0.482	1.000	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	245	228	248	755	852	416	470
Cap Entry Lane, veh/h	652	725	353	1037	1113	841	917
Entry HV Adj Factor	0.979	0.982	0.980	0.981	0.980	0.981	0.979
Flow Entry, veh/h	240	224	243	741	835	408	460
Cap Entry, veh/h	638	711	346	1017	1091	824	897
V/C Ratio	0.376	0.315	0.702	0.728	0.766	0.495	0.513
Control Delay, s/veh	10.9	8.9	35.0	16.0	17.0	11.0	10.7
LOS	B	A	E	C	C	B	B
95th %tile Queue, veh	2	1	5	7	8	3	3

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	0	3
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	959	1389	0	0
Demand Flow Rate, veh/h	978	1417	0	0
Vehicles Circulating, veh/h	222	0	1002	1417
Vehicles Exiting, veh/h	1606	1002	198	0
Ped Vol Crossing Leg, #/h	0	0	8	9
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.8	8.0	0.0	0.0
Approach LOS	A	A	-	-

Lane	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR
RT Channelized				
Lane Util	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328
Entry Flow, veh/h	460	518	666	751
Cap Entry Lane, veh/h	1101	1176	1350	1420
Entry HV Adj Factor	0.980	0.981	0.980	0.980
Flow Entry, veh/h	451	508	653	736
Cap Entry, veh/h	1078	1154	1323	1392
V/C Ratio	0.418	0.441	0.493	0.529
Control Delay, s/veh	7.8	7.8	7.8	8.1
LOS	A	A	A	A
95th %tile Queue, veh	2	2	3	3

Lane Group	EBT	WBT	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1	245	126	324	593	443	687
v/c Ratio	0.00	0.78	0.08	0.68	0.71	0.76	0.57
Control Delay	0.0	52.1	0.1	34.9	7.8	36.1	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	52.1	0.1	34.9	7.8	36.1	10.6
Queue Length 50th (ft)	0	114	0	139	0	187	151
Queue Length 95th (ft)	0	#289	0	259	91	#430	338
Internal Link Dist (ft)	160	615		469			438
Turn Bay Length (ft)			180		370	490	
Base Capacity (vph)	668	314	1583	613	901	582	1223
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.78	0.08	0.53	0.66	0.76	0.56

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	224	2	116	0	298	546	408	631	1
Future Volume (veh/h)	0	0	1	224	2	116	0	298	546	408	631	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	1	243	2	0	0	324	0	443	686	1
Peak Hour Factor	0.25	0.25	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	2	295	2		3	402		507	1074	2
Arrive On Green	0.00	0.00	0.00	0.17	0.17	0.00	0.00	0.22	0.00	0.28	0.58	0.58
Sat Flow, veh/h	0	0	1585	1767	15	1585	1781	1870	1585	1781	1867	3
Grp Volume(v), veh/h	0	0	1	245	0	0	0	324	0	443	0	687
Grp Sat Flow(s),veh/h/ln	0	0	1585	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.0	8.8	0.0	0.0	0.0	10.9	0.0	15.7	0.0	16.3
Cycle Q Clear(g_c), s	0.0	0.0	0.0	8.8	0.0	0.0	0.0	10.9	0.0	15.7	0.0	16.3
Prop In Lane	0.00		1.00	0.99		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	2	297	0		3	402		507	0	1076
V/C Ratio(X)	0.00	0.00	0.42	0.82	0.00		0.00	0.81		0.87	0.00	0.64
Avail Cap(c_a), veh/h	0	0	647	377	0		108	735		700	0	1356
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	33.0	26.6	0.0	0.0	0.0	24.6	0.0	22.5	0.0	9.4
Incr Delay (d2), s/veh	0.0	0.0	87.3	11.2	0.0	0.0	0.0	3.8	0.0	9.0	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.1	7.6	0.0	0.0	0.0	8.1	0.0	11.1	0.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	120.3	37.9	0.0	0.0	0.0	28.5	0.0	31.6	0.0	10.1
LnGrp LOS	A	A	F	D	A		A	C		C	A	B
Approach Vol, veh/h		1			245	A		324	A		1130	
Approach Delay, s/veh		120.3			37.9			28.5			18.5	
Approach LOS		F			D			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	23.8	20.2		5.1	0.0	44.1		17.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	26.0	26.0		27.0	4.0	48.0		14.0				
Max Q Clear Time (g_c+I1), s	17.7	12.9		2.0	0.0	18.3		10.8				
Green Ext Time (p_c), s	1.2	1.4		0.0	0.0	4.7		0.4				

Intersection Summary		
HCM 6th Ctrl Delay		23.3
HCM 6th LOS		C

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	57.5	48.9	48.9	57.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.74	2.48	2.73	2.82
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	14	8
Total Flow Rate (veh/h)	1	371	917	1130
Effct. Green for Bike (s)	5.5	14.1	20.4	51.7
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	96	245	355	899
Bicycle Delay (s/bike)	52.2	44.3	39.2	17.5
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.71	3.32	2.86	2.78
Bicycle LOS	C	C	C	C

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	166	48	622	1058	7
Future Vol, veh/h	21	166	48	622	1058	7
Conflicting Peds, #/hr	1	0	2	0	0	2
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	180	52	676	1150	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1599	581	1160	0	-	0
Stage 1	1156	-	-	-	-	-
Stage 2	443	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	97	457	598	-	-	-
Stage 1	262	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	88	456	597	-	-	-
Mov Cap-2 Maneuver	88	-	-	-	-	-
Stage 1	239	-	-	-	-	-
Stage 2	613	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.7	0.8	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	597	-	88	456	-	-
HCM Lane V/C Ratio	0.087	-	0.259	0.396	-	-
HCM Control Delay (s)	11.6	-	59.7	18	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.9	1.9	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	372775.4	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	1680	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.95	
Delay for adq Gap	372777.56	
Avg Ped Delay (s)	372775.44	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	365.6	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	1058	622
Ped Vol Crossed	1	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.99	0.86
Prob of Blocked Lane	0.90	0.63
Delay for adq Gap	343.52	29.35
Avg Ped Delay (s)	340.27	25.38

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	298	102	604	378	101	1230
v/c Ratio	0.25	0.18	0.46	0.49	0.28	0.71
Control Delay	16.2	4.5	20.8	4.8	13.6	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	4.5	20.8	4.8	13.6	18.0
Queue Length 50th (ft)	46	0	120	0	25	234
Queue Length 95th (ft)	73	28	168	57	52	311
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1517	702	1314	777	359	1888
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.15	0.46	0.49	0.28	0.65

Intersection Summary

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	274	94	556	348	93	1132
Future Volume (veh/h)	274	94	556	348	93	1132
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.93	0.99	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	298	102	604	378	101	1230
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	554	254	1499	624	434	2165
Arrive On Green	0.16	0.16	0.42	0.42	0.06	0.61
Sat Flow, veh/h	3456	1585	3647	1478	1781	3647
Grp Volume(v), veh/h	298	102	604	378	101	1230
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1478	1781	1777
Q Serve(g_s), s	3.8	2.8	5.7	9.5	1.4	9.9
Cycle Q Clear(g_c), s	3.8	2.8	5.7	9.5	1.4	9.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	554	254	1499	624	434	2165
V/C Ratio(X)	0.54	0.40	0.40	0.61	0.23	0.57
Avail Cap(c_a), veh/h	2099	963	1787	743	510	2605
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	18.0	9.6	10.7	6.4	5.6
Incr Delay (d2), s/veh	0.8	1.0	0.4	2.2	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	0.1	3.3	5.1	0.5	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.2	19.0	10.0	12.9	6.5	6.0
LnGrp LOS	B	B	B	B	A	A
Approach Vol, veh/h	400		982			1331
Approach Delay, s/veh	19.2		11.1			6.1
Approach LOS	B		B			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		35.1		12.7	9.0	26.1
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		35.0		29.0	5.0	24.0
Max Q Clear Time (g_c+I1), s		11.9		5.8	3.4	11.5
Green Ext Time (p_c), s		14.6		1.9	0.0	7.8

Intersection Summary	
HCM 6th Ctrl Delay	9.8
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	65.0	80.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	None	Actuated
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	8.0	0.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	7.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	26	0	4
Ped. Right-Left Flow Rate (p/h)	3	0	81
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	5171.5	20304.9	6903.4
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	528.3	0.0	184.4
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	29.9	37.5	29.9
Pedestrian Compliance Code	Fair	Poor	Fair
Pedestrian Crosswalk Score	2.30	2.79	2.89
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	17	6
Total Flow Rate (veh/h)	400	982	1331
Effct. Green for Bike (s)	23.6	25.5	33.6
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	629	680	896
Bicycle Delay (s/bike)	17.6	16.5	11.5
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	2.96	1.85	1.63
Bicycle LOS	C	B	B

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	51	850	91	105	1352
Future Vol, veh/h	22	51	850	91	105	1352
Conflicting Peds, #/hr	0	0	0	22	22	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	55	924	99	114	1470

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1959	534	0	0	1045	0
Stage 1	996	-	-	-	-	-
Stage 2	963	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	74	420	-	-	372	-
Stage 1	249	-	-	-	-	-
Stage 2	323	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	50	411	-	-	364	-
Mov Cap-2 Maneuver	50	-	-	-	-	-
Stage 1	244	-	-	-	-	-
Stage 2	222	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	49.9	0	1.4
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	50	411	364	-
HCM Lane V/C Ratio	-	-	0.478	0.135	0.314	-
HCM Control Delay (s)	-	-	130.7	15.1	19.3	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	1.8	0.5	1.3	-

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	1965.9	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	850	1352
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	0.98	1.00
Prob of Blocked Lane	0.74	0.96
Delay for adq Gap	233.25	1739.22
Avg Ped Delay (s)	229.32	1736.58

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	69382088.0
Level of Service	F

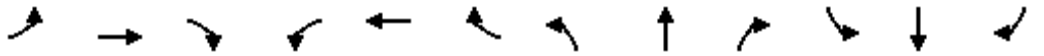
Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2202
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.97
Delay for adq Gap	69382088.00
Avg Ped Delay (s)	69382088.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	58	122	102	7	47	1010	17	1458	22
v/c Ratio	0.16	0.25	0.28	0.01	0.24	0.33	0.05	0.83	0.03
Control Delay	20.4	7.3	22.6	0.0	12.3	12.4	10.1	26.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.4	7.3	22.6	0.0	12.3	12.4	10.1	26.1	0.1
Queue Length 50th (ft)	21	7	38	0	11	111	4	~399	0
Queue Length 95th (ft)	47	42	75	0	27	173	13	#563	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	597	717	571	698	196	3083	331	1755	796
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.17	0.18	0.01	0.24	0.33	0.05	0.83	0.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	16	112	78	16	6	43	900	29	16	1341	20
Future Volume (veh/h)	38	16	112	78	16	6	43	900	29	16	1341	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.95	0.98		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	17	122	85	17	7	47	978	32	17	1458	22
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	72	18	530	78	9	538	169	2268	74	281	1463	625
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.05	0.45	0.45	0.01	0.41	0.41
Sat Flow, veh/h	0	52	1502	0	25	1524	1781	5071	166	1781	3554	1517
Grp Volume(v), veh/h	58	0	122	102	0	7	47	656	354	17	1458	22
Grp Sat Flow(s),veh/h/ln	52	0	1502	25	0	1524	1781	1702	1833	1781	1777	1517
Q Serve(g_s), s	0.0	0.0	4.9	0.0	0.0	0.3	1.2	11.2	11.2	0.5	34.8	0.7
Cycle Q Clear(g_c), s	30.0	0.0	4.9	30.0	0.0	0.3	1.2	11.2	11.2	0.5	34.8	0.7
Prop In Lane	0.71		1.00	0.83		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	91	0	530	86	0	538	169	1522	820	281	1463	625
V/C Ratio(X)	0.64	0.00	0.23	1.18	0.00	0.01	0.28	0.43	0.43	0.06	1.00	0.04
Avail Cap(c_a), veh/h	91	0	530	86	0	538	169	1522	820	323	1463	625
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.2	0.0	19.4	39.5	0.0	17.9	20.0	16.1	16.1	14.7	24.9	14.9
Incr Delay (d2), s/veh	16.0	0.0	0.3	153.1	0.0	0.0	1.9	0.3	0.6	0.1	22.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	0.0	3.1	9.9	0.0	0.2	1.0	7.1	7.7	0.3	24.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.2	0.0	19.7	192.6	0.0	17.9	21.9	16.4	16.7	14.7	47.6	15.0
LnGrp LOS	D	A	B	F	A	B	C	B	B	B	D	B
Approach Vol, veh/h		180			109			1057			1497	
Approach Delay, s/veh		29.2			181.4			16.8			46.7	
Approach LOS		C			F			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	41.0		35.0	6.0	44.0		35.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	4.0	35.0		30.0	3.0	36.0		30.0				
Max Q Clear Time (g_c+I1), s	3.2	36.8		32.0	2.5	13.2		32.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	10.7		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			39.6									
HCM 6th LOS			D									

Notes

User approved pedestrian interval to be less than phase max green.

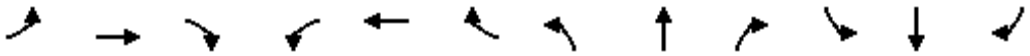
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	4	12	0	8
Ped. Right-Left Flow Rate (p/h)	4	2	0	37
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73706.7	9989.4	42095.1	11094.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2301.5	1312.9	0.0	278.8
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	32.2	32.2	42.5	35.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.01	1.98	3.12	3.12
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	180	109	1057	1497
Effct. Green for Bike (s)	19.7	19.8	45.1	36.6
Cross Street Width (ft)	84.5	96.0	36.1	37.9
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	464	466	1061	861
Bicycle Delay (s/bike)	25.1	25.0	9.4	13.8
Bicycle Compliance	Fair	Fair	Good	Fair
Bicycle LOS Score	3.15	3.21	2.69	2.30
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	118	190	203	216	206	53	548	179	667	1137
v/c Ratio	0.40	0.60	0.51	0.85	0.59	0.59	0.46	0.28	0.78	0.71
Control Delay	32.8	34.9	39.4	52.1	13.6	66.4	27.7	4.3	37.0	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	34.9	39.4	52.1	13.6	66.4	27.7	4.3	37.0	21.8
Queue Length 50th (ft)	53	78	48	65	0	26	81	0	157	227
Queue Length 95th (ft)	98	139	93	#223	69	#92	135	41	#295	385
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	545	561	396	255	347	90	1305	643	852	1605
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.34	0.51	0.85	0.59	0.59	0.42	0.28	0.78	0.71

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	127	48	187	67	321	49	504	165	614	991	55
Future Volume (veh/h)	109	127	48	187	67	321	49	504	165	614	991	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	138	52	203	0	398	53	548	179	667	1077	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	292	209	79	429	0	365	67	1144	533	867	1492	83
Arrive On Green	0.16	0.16	0.16	0.12	0.00	0.12	0.04	0.22	0.22	0.25	0.44	0.44
Sat Flow, veh/h	1781	1277	481	3563	0	3034	1781	5106	1528	3456	3412	190
Grp Volume(v), veh/h	118	0	190	203	0	398	53	548	179	667	561	576
Grp Sat Flow(s),veh/h/ln	1781	0	1758	1781	0	1517	1781	1702	1528	1728	1777	1825
Q Serve(g_s), s	4.4	0.0	7.6	4.0	0.0	9.0	2.2	7.0	6.5	13.4	19.4	19.4
Cycle Q Clear(g_c), s	4.4	0.0	7.6	4.0	0.0	9.0	2.2	7.0	6.5	13.4	19.4	19.4
Prop In Lane	1.00		0.27	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	292	0	288	429	0	365	67	1144	533	867	777	798
V/C Ratio(X)	0.40	0.00	0.66	0.47	0.00	1.09	0.79	0.48	0.34	0.77	0.72	0.72
Avail Cap(c_a), veh/h	572	0	565	429	0	365	95	1366	600	878	832	855
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	0.0	29.3	30.7	0.0	32.9	35.7	25.2	18.2	26.0	17.3	17.3
Incr Delay (d2), s/veh	0.7	0.0	1.9	2.9	0.0	73.3	16.1	1.4	1.7	5.9	5.7	5.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	0.0	5.8	3.2	0.0	11.4	2.2	4.9	5.0	9.6	12.5	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	0.0	31.2	33.6	0.0	106.1	51.7	26.6	19.9	31.9	23.0	22.9
LnGrp LOS	C	A	C	C	A	F	D	C	B	C	C	C
Approach Vol, veh/h		308			601			780			1804	
Approach Delay, s/veh		30.2			81.6			26.8			26.3	
Approach LOS		C			F			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		17.3	6.8	36.7		14.0	22.7	20.7				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	4.0	35.0		9.0	19.0	20.0				
Max Q Clear Time (g_c+I1), s		9.6	4.2	21.4		11.0	15.4	9.0				
Green Ext Time (p_c), s		1.1	0.0	11.3		0.0	2.1	6.9				

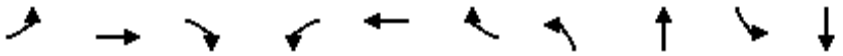
Intersection Summary												
HCM 6th Ctrl Delay			36.3									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	2
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	7	3	5
Ped. Right-Left Flow Rate (p/h)	3	9	2	7
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53595.0	21042.6	2466.8	32742.1
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	2322.2	863.4	1875.0	854.0
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	34.7	34.7	37.4	37.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.11	3.01	3.04	3.44
Pedestrian Crosswalk LOS	B	C	C	C

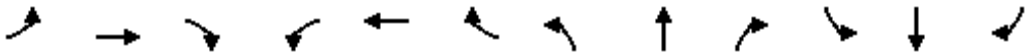
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	5	12	6
Total Flow Rate (veh/h)	308	625	780	1804
Effct. Green for Bike (s)	13.2	9.1	18.6	35.9
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	293	202	413	798
Bicycle Delay (s/bike)	32.9	36.5	28.5	16.3
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	3.34	3.78	1.70	3.09
Bicycle LOS	C	D	B	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	53	123	85	129	122	77	233	743	104	1175
v/c Ratio	0.27	0.52	0.23	0.33	0.32	0.18	0.55	0.31	0.53	0.62
Control Delay	40.8	38.5	1.4	34.7	27.1	0.9	38.3	14.7	48.4	22.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	38.5	1.4	34.7	27.1	0.9	38.3	14.7	48.4	22.0
Queue Length 50th (ft)	11	54	0	27	50	0	50	70	23	146
Queue Length 95th (ft)	36	104	0	65	91	0	#121	158	#74	294
Internal Link Dist (ft)		461			455			697		1255
Turn Bay Length (ft)	240		240	300		230	300		200	
Base Capacity (vph)	197	236	377	1678	910	834	444	2381	197	1956
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.52	0.23	0.08	0.13	0.09	0.52	0.31	0.53	0.60

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	113	78	119	112	71	214	612	72	99	1035	82
Future Volume (veh/h)	49	113	78	119	112	71	214	612	72	99	1035	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	123	85	129	122	77	233	665	78	104	1089	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	297	247	256	325	270	336	1863	216	176	1716	135
Arrive On Green	0.06	0.16	0.16	0.07	0.17	0.17	0.10	0.40	0.40	0.05	0.36	0.36
Sat Flow, veh/h	3456	1870	1555	3456	1870	1558	3456	4628	537	3456	4816	380
Grp Volume(v), veh/h	53	123	85	129	122	77	233	487	256	104	769	406
Grp Sat Flow(s),veh/h/ln	1728	1870	1555	1728	1870	1558	1728	1702	1762	1728	1702	1792
Q Serve(g_s), s	1.0	4.0	3.3	2.4	3.9	2.9	4.4	6.7	6.8	2.0	12.6	12.6
Cycle Q Clear(g_c), s	1.0	4.0	3.3	2.4	3.9	2.9	4.4	6.7	6.8	2.0	12.6	12.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.31	1.00		0.21
Lane Grp Cap(c), veh/h	206	297	247	256	325	270	336	1370	709	176	1213	638
V/C Ratio(X)	0.26	0.41	0.34	0.50	0.38	0.28	0.69	0.36	0.36	0.59	0.63	0.64
Avail Cap(c_a), veh/h	206	297	247	1752	948	790	464	1624	840	206	1370	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	25.4	25.1	29.9	24.5	24.1	29.3	14.0	14.0	31.1	17.9	18.0
Incr Delay (d2), s/veh	0.7	0.9	0.8	1.5	0.7	0.6	2.6	0.5	0.9	3.2	1.7	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	3.2	2.2	1.9	3.1	1.9	3.2	4.0	4.4	1.5	7.9	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.8	26.3	25.9	31.4	25.2	24.7	31.9	14.4	14.9	34.4	19.7	21.2
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	C
Approach Vol, veh/h		261			328			976			1279	
Approach Delay, s/veh		27.1			27.5			18.7			21.4	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	29.9	10.0	15.7	8.4	33.0	9.0	16.6
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	9.0	27.0	34.0	4.0	4.0	32.0	4.0	34.0
Max Q Clear Time (g_c+I1), s	6.4	14.6	4.4	6.0	4.0	8.8	3.0	5.9
Green Ext Time (p_c), s	0.2	9.3	0.6	0.0	0.0	9.7	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Notes

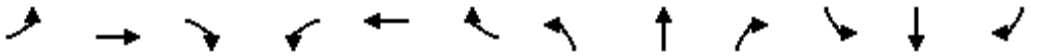
User approved pedestrian interval to be less than phase max green.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	100.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	6	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	30.0	30.0	30.0	30.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	6	3	1	6
Ped. Right-Left Flow Rate (p/h)	1	1	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	73713.4	42105.3	117933.8	34666.4
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1398.2	3211.5	0.1	1249.3
Crosswalk Circulation Code	A	A	F	A
Pedestrian Delay (s/p)	38.9	38.9	47.5	38.9
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.64	2.58	3.15	3.12
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	1	0	4
Total Flow Rate (veh/h)	261	328	976	1279
Effct. Green for Bike (s)	9.1	14.6	34.1	26.9
Cross Street Width (ft)	100.0	99.0	68.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	192	307	718	566
Bicycle Delay (s/bike)	38.8	34.0	19.5	24.5
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	3.52	2.33	1.85	1.89
Bicycle LOS	D	B	B	B

Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	63	68	22	28	53	987	31	1263	54
v/c Ratio	0.36	0.23	0.12	0.09	0.25	0.40	0.19	0.54	0.05
Control Delay	32.3	4.5	26.9	0.7	33.1	7.0	31.4	9.2	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.3	4.5	26.9	0.7	33.1	7.0	31.4	9.2	3.0
Queue Length 50th (ft)	24	0	8	0	10	63	12	151	2
Queue Length 95th (ft)	56	16	26	0	26	177	36	230	15
Internal Link Dist (ft)				233		1200		376	
Turn Bay Length (ft)	100	100			150		100		100
Base Capacity (vph)	1377	1583	1410	1583	211	2468	163	2370	1075
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.04	0.02	0.02	0.25	0.40	0.19	0.53	0.05

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	0	63	20	0	26	49	825	83	29	1187	50
Future Volume (veh/h)	58	0	63	20	0	26	49	825	83	29	1187	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	0	68	22	0	28	53	897	90	31	1263	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	289	215	182	305	0	182	146	1757	176	50	1871	826
Arrive On Green	0.11	0.00	0.11	0.11	0.00	0.11	0.04	0.54	0.54	0.03	0.53	0.53
Sat Flow, veh/h	1382	1870	1585	1333	0	1585	3456	3250	326	1781	3554	1570
Grp Volume(v), veh/h	63	0	68	22	0	28	53	490	497	31	1263	54
Grp Sat Flow(s),veh/h/ln	1382	1870	1585	1333	0	1585	1728	1777	1799	1781	1777	1570
Q Serve(g_s), s	2.0	0.0	1.9	0.7	0.0	0.8	0.7	8.3	8.3	0.8	12.4	0.8
Cycle Q Clear(g_c), s	2.8	0.0	1.9	0.7	0.0	0.8	0.7	8.3	8.3	0.8	12.4	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		1.00
Lane Grp Cap(c), veh/h	289	215	182	305	0	182	146	960	973	50	1871	826
V/C Ratio(X)	0.22	0.00	0.37	0.07	0.00	0.15	0.36	0.51	0.51	0.62	0.68	0.07
Avail Cap(c_a), veh/h	2960	3830	3246	2879	0	3242	291	1386	1404	225	2923	1291
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	19.4	18.9	0.0	18.9	22.1	6.9	6.9	22.8	8.2	5.5
Incr Delay (d2), s/veh	0.4	0.0	1.3	0.1	0.0	0.4	1.5	0.4	0.4	11.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	0.0	1.3	0.4	0.0	0.5	0.5	3.2	3.3	0.8	4.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	0.0	20.7	19.0	0.0	19.3	23.6	7.3	7.3	34.4	8.7	5.5
LnGrp LOS	C	A	C	B	A	B	C	A	A	C	A	A
Approach Vol, veh/h		131			50			1040			1348	
Approach Delay, s/veh		20.6			19.2			8.2			9.1	
Approach LOS		C			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	31.4		10.1	6.5	30.8		10.1				
Change Period (Y+Rc), s	4.5	5.8		* 4.7	4.5	5.8		* 4.7				
Max Green Setting (Gmax), s	6.0	37.0		* 97	4.0	39.0		* 97				
Max Q Clear Time (g_c+I1), s	2.8	10.3		4.8	2.7	14.4		2.8				
Green Ext Time (p_c), s	0.0	6.6		0.6	0.0	10.1		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

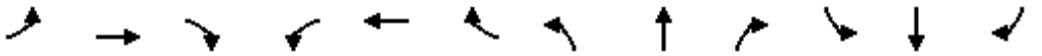
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.9	36.0	72.0	83.8
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	77.5	77.5	77.5	77.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	2.02	3.07	3.05
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	131	50	1040	1348
Effct. Green for Bike (s)	8.2	8.2	45.9	43.3
Cross Street Width (ft)	72.0	83.8	36.0	50.9
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	106	106	592	559
Bicycle Delay (s/bike)	69.5	69.5	38.4	40.2
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.88	2.92	2.97	3.45
Bicycle LOS	C	C	C	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	34	10	93	102	66	84	1041	167	63	1057	31
v/c Ratio	0.15	0.03	0.26	0.43	0.21	0.23	0.46	0.16	0.16	0.49	0.03
Control Delay	23.3	19.8	4.2	30.6	8.6	8.4	14.2	5.3	7.9	14.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Total Delay	23.3	19.8	4.2	30.6	8.6	8.4	14.6	5.3	7.9	14.9	0.1
Queue Length 50th (ft)	15	4	0	46	4	8	135	7	6	134	0
Queue Length 95th (ft)	25	11	18	58	23	47	#388	56	37	#397	0
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	567	794	741	596	716	367	2257	1032	393	2177	996
Starvation Cap Reductn	0	0	0	0	0	0	666	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.01	0.13	0.17	0.09	0.23	0.65	0.16	0.16	0.49	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	9	86	94	8	52	77	958	154	61	1025	30
Future Volume (veh/h)	31	9	86	94	8	52	77	958	154	61	1025	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	10	0	102	9	57	84	1041	167	63	1057	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	193	207		244	24	154	433	2230	973	402	2207	970
Arrive On Green	0.11	0.11	0.00	0.11	0.11	0.11	0.06	0.63	0.63	0.05	0.62	0.62
Sat Flow, veh/h	1333	1870	1585	1401	220	1395	1781	3554	1551	1781	3554	1562
Grp Volume(v), veh/h	34	10	0	102	0	66	84	1041	167	63	1057	31
Grp Sat Flow(s),veh/h/ln	1333	1870	1585	1401	0	1615	1781	1777	1551	1781	1777	1562
Q Serve(g_s), s	1.8	0.4	0.0	5.3	0.0	2.8	1.2	11.6	3.4	0.9	12.0	0.6
Cycle Q Clear(g_c), s	4.7	0.4	0.0	5.6	0.0	2.8	1.2	11.6	3.4	0.9	12.0	0.6
Prop In Lane	1.00		1.00	1.00		0.86	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	207		244	0	178	433	2230	973	402	2207	970
V/C Ratio(X)	0.18	0.05		0.42	0.00	0.37	0.19	0.47	0.17	0.16	0.48	0.03
Avail Cap(c_a), veh/h	614	798		687	0	689	454	2230	973	434	2207	970
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.79	0.79	0.79	0.85	0.85	0.85
Uniform Delay (d), s/veh	33.1	29.8	0.0	32.3	0.0	30.9	5.3	7.4	5.8	5.2	7.7	5.5
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.4	0.0	0.5	0.1	0.6	0.3	0.2	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.1	0.3	0.0	3.2	0.0	2.0	0.5	5.9	1.6	0.4	6.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	29.9	0.0	32.8	0.0	31.4	5.3	7.9	6.1	5.3	8.3	5.5
LnGrp LOS	C	C		C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		44	A		168			1292			1151	
Approach Delay, s/veh		32.5			32.2			7.5			8.1	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	52.6		13.3	8.7	53.1		13.3				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	5.0	22.0		32.0	5.0	22.0		32.0				
Max Q Clear Time (g_c+I1), s	3.2	14.0		7.6	2.9	13.6		6.7				
Green Ext Time (p_c), s	0.0	6.6		0.2	0.0	7.2		0.0				

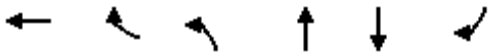
Intersection Summary												
HCM 6th Ctrl Delay			9.7									
HCM 6th LOS			A									

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	12600.0	0.0	589777.6
Right Corner Quality of Service	-	A	-	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	14033.4
Crosswalk Circulation Code	-	-	-	A
Pedestrian Delay (s/p)	29.9	29.9	29.9	29.9
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.47	2.13	3.19	3.02
Pedestrian Crosswalk LOS	B	B	C	C

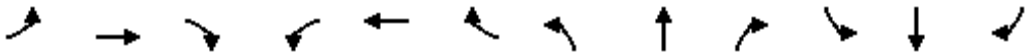
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	4
Total Flow Rate (veh/h)	137	168	1292	1151
Effct. Green for Bike (s)	12.6	12.6	47.8	46.1
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	336	336	1275	1229
Bicycle Delay (s/bike)	26.0	26.0	4.9	5.6
Bicycle Compliance	Fair	Fair	Good	Good
Bicycle LOS Score	3.10	3.21	1.66	2.02
Bicycle LOS	C	C	B	B



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	558	302	37	1070	860	556
v/c Ratio	0.85	0.48	0.37	0.61	0.56	0.63
Control Delay	36.1	15.7	46.6	17.1	21.7	8.0
Queue Delay	0.0	0.0	0.0	0.0	1.1	0.6
Total Delay	36.1	15.7	46.6	17.1	22.9	8.6
Queue Length 50th (ft)	251	80	20	288	203	33
Queue Length 95th (ft)	318	122	m33	333	270	141
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	735	698	99	1750	1535	883
Starvation Cap Reductn	0	0	0	0	418	93
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.43	0.37	0.61	0.77	0.70

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



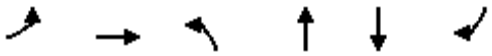
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	456	2	248	31	899	0	0	774	500
Future Volume (veh/h)	0	0	0	456	2	248	31	899	0	0	774	500
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				556	2	302	37	1070	0	0	860	556
Peak Hour Factor				0.82	0.82	0.82	0.84	0.84	0.84	0.90	0.90	0.90
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				631	2	563	44	1829	0	0	1567	638
Arrive On Green				0.38	0.38	0.38	0.05	1.00	0.00	0.00	0.44	0.44
Sat Flow, veh/h				1663	6	1485	1668	3647	0	0	3647	1446
Grp Volume(v), veh/h				558	0	302	37	1070	0	0	860	556
Grp Sat Flow(s),veh/h/ln				1669	0	1485	1668	1777	0	0	1777	1446
Q Serve(g_s), s				26.5	0.0	13.5	1.9	0.0	0.0	0.0	15.2	29.7
Cycle Q Clear(g_c), s				26.5	0.0	13.5	1.9	0.0	0.0	0.0	15.2	29.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				633	0	563	44	1829	0	0	1567	638
V/C Ratio(X)				0.88	0.00	0.54	0.84	0.59	0.00	0.00	0.55	0.87
Avail Cap(c_a), veh/h				746	0	664	79	1829	0	0	1567	638
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.80	0.80	0.00	0.00	0.88	0.88
Uniform Delay (d), s/veh				24.6	0.0	20.5	40.1	0.0	0.0	0.0	17.5	21.6
Incr Delay (d2), s/veh				10.6	0.0	0.8	26.5	1.1	0.0	0.0	1.2	13.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				17.4	0.0	8.1	1.9	0.5	0.0	0.0	9.4	16.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				35.2	0.0	21.3	66.5	1.1	0.0	0.0	18.7	35.2
LnGrp LOS				D	A	C	E	A	A	A	B	D
Approach Vol, veh/h					860			1107			1416	
Approach Delay, s/veh					30.3			3.3			25.2	
Approach LOS					C			A			C	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	6.3	42.5				48.7		36.3				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	4.0	30.0				38.0		38.0				
Max Q Clear Time (g_c+I1), s	3.9	31.7				2.0		28.5				
Green Ext Time (p_c), s	0.0	0.0				8.9		3.8				

Intersection Summary			
HCM 6th Ctrl Delay			19.3
HCM 6th LOS			B

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	34.0	34.0	42.5	42.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.08	2.32	3.05	3.12
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	1	5
Total Flow Rate (veh/h)	0	860	1107	1416
Effct. Green for Bike (s)	0.0	34.0	42.0	36.9
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	800	988	868
Bicycle Delay (s/bike)	0.0	15.3	10.9	13.6
Bicycle Compliance		Fair	Fair	Fair
Bicycle LOS Score	0.00	2.96	1.84	1.84
Bicycle LOS		C	B	B

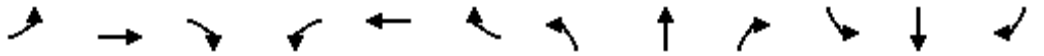


Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	465	439	97	490	1259	118
v/c Ratio	0.91	0.77	0.43	0.25	0.95	0.11
Control Delay	51.3	27.7	39.6	10.5	37.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	27.7	39.6	10.5	37.2	0.7
Queue Length 50th (ft)	242	150	48	68	220	1
Queue Length 95th (ft)	#403	257	81	82	#500	m5
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	531	587	223	1959	1331	1104
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.75	0.43	0.25	0.95	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	547	0	239	0	0	0	77	387	0	0	1133	106
Future Volume (veh/h)	547	0	239	0	0	0	77	387	0	0	1133	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	452	248	275	0	0	0	97	490	0	0	1259	118
Peak Hour Factor	0.87	0.87	0.87	0.25	0.25	0.25	0.79	0.79	0.79	0.90	0.90	0.90
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	553	269	298	0	2	0	108	1958	0	0	1582	1136
Arrive On Green	0.33	0.33	0.33	0.00	0.00	0.00	0.06	0.55	0.00	0.00	0.89	0.89
Sat Flow, veh/h	1668	810	898	0	1870	0	1668	3647	0	0	3647	1447
Grp Volume(v), veh/h	452	0	523	0	0	0	97	490	0	0	1259	118
Grp Sat Flow(s),veh/h/ln	1668	0	1709	0	1870	0	1668	1777	0	0	1777	1447
Q Serve(g_s), s	21.1	0.0	25.1	0.0	0.0	0.0	4.9	6.1	0.0	0.0	11.4	0.4
Cycle Q Clear(g_c), s	21.1	0.0	25.1	0.0	0.0	0.0	4.9	6.1	0.0	0.0	11.4	0.4
Prop In Lane	1.00		0.53	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	553	0	566	0	2	0	108	1958	0	0	1582	1136
V/C Ratio(X)	0.82	0.00	0.92	0.00	0.00	0.00	0.90	0.25	0.00	0.00	0.80	0.10
Avail Cap(c_a), veh/h	569	0	583	0	88	0	108	1958	0	0	1582	1136
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.81	0.81
Uniform Delay (d), s/veh	26.1	0.0	27.4	0.0	0.0	0.0	39.5	9.9	0.0	0.0	3.2	0.4
Incr Delay (d2), s/veh	8.9	0.0	20.3	0.0	0.0	0.0	55.8	0.3	0.0	0.0	3.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	14.4	0.0	18.8	0.0	0.0	0.0	6.4	3.7	0.0	0.0	3.7	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.0	0.0	47.6	0.0	0.0	0.0	95.3	10.2	0.0	0.0	6.7	0.6
LnGrp LOS	C	A	D	A	A	A	F	B	A	A	A	A
Approach Vol, veh/h		975			0			587			1377	
Approach Delay, s/veh		41.8			0.0			24.3			6.2	
Approach LOS		D						C			A	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.0	43.8		32.2		52.8		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	5.5	29.0		29.0		38.0		4.0				
Max Q Clear Time (g_c+I1), s	6.9	13.4		27.1		8.1		0.0				
Green Ext Time (p_c), s	0.0	8.2		1.1		3.2		0.0				

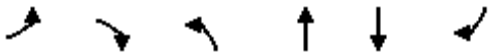
Intersection Summary			
HCM 6th Ctrl Delay		21.6	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	34.0	34.0	42.5	42.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.53	1.42	2.93	3.04
Pedestrian Crosswalk LOS	C	A	C	C

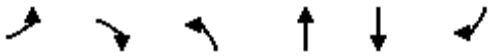
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	2	6
Total Flow Rate (veh/h)	904	0	587	1377
Effct. Green for Bike (s)	27.9	4.3	47.1	32.0
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	656	101	1108	753
Bicycle Delay (s/bike)	19.2	38.3	8.5	16.6
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	4.12	1.39	1.83	2.47
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1147	170	133	521	264	341
v/c Ratio	0.83	0.22	0.36	0.70	0.53	0.32
Control Delay	25.7	3.9	14.0	20.5	24.4	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.7	3.9	14.0	20.5	24.4	3.9
Queue Length 50th (ft)	194	0	31	156	90	33
Queue Length 95th (ft)	#410	38	59	243	151	55
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		180	200			
Base Capacity (vph)	1387	789	372	1144	813	1051
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.22	0.36	0.46	0.32	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1101	163	120	469	253	327
Future Volume (veh/h)	1101	163	120	469	253	327
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	1147	170	133	521	264	341
Peak Hour Factor	0.96	0.96	0.90	0.90	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1371	654	340	760	432	983
Arrive On Green	0.40	0.40	0.08	0.41	0.23	0.23
Sat Flow, veh/h	3456	1648	1781	1870	1870	1531
Grp Volume(v), veh/h	1147	170	133	521	264	341
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1531
Q Serve(g_s), s	18.3	4.2	3.2	14.0	7.7	6.5
Cycle Q Clear(g_c), s	18.3	4.2	3.2	14.0	7.7	6.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1371	654	340	760	432	983
V/C Ratio(X)	0.84	0.26	0.39	0.69	0.61	0.35
Avail Cap(c_a), veh/h	1418	676	349	1166	829	1307
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	12.4	15.2	14.9	21.0	5.4
Incr Delay (d2), s/veh	5.3	0.6	0.7	1.3	1.9	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.0	0.2	2.1	8.6	5.7	7.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.9	12.9	16.0	16.2	22.9	5.7
LnGrp LOS	C	B	B	B	C	A
Approach Vol, veh/h	1317			654	605	
Approach Delay, s/veh	20.7			16.2	13.2	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		30.8		30.2	10.7	20.1
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		38.0		25.0	5.0	27.0
Max Q Clear Time (g_c+I1), s		16.0		20.3	5.2	9.7
Green Ext Time (p_c), s		3.8		3.9	0.0	3.9

Intersection Summary		
HCM 6th Ctrl Delay		17.8
HCM 6th LOS		B

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	10.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	1	0
Ped. Right-Left Flow Rate (p/h)	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196592.5	32400.0	294870.1
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	2771.5	12361.5	0.0
Crosswalk Circulation Code	A	A	-
Pedestrian Delay (s/p)	29.9	29.9	37.5
Pedestrian Compliance Code	Fair	Fair	Poor
Pedestrian Crosswalk Score	2.85	2.46	2.87
Pedestrian Crosswalk LOS	C	B	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	3	6	4
Total Flow Rate (veh/h)	1317	654	605
Effct. Green for Bike (s)	25.4	25.2	16.8
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	677	672	448
Bicycle Delay (s/bike)	16.4	16.6	22.6
Bicycle Compliance	Fair	Fair	Fair
Bicycle LOS Score	2.12	2.36	2.27
Bicycle LOS	B	B	B

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	214	1392	145	0	791
Future Vol, veh/h	0	214	1392	145	0	791
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	214	1392	145	0	791

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	769	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	344	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	344	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	31.2	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	344	-
HCM Lane V/C Ratio	-	-	0.622	-
HCM Control Delay (s)	-	-	31.2	-
HCM Lane LOS	-	-	D	-
HCM 95th %tile Q(veh)	-	-	4	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	166291.5
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2183
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	166293.16
Avg Ped Delay (s)	166291.52

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	166291.5
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2183
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.94
Delay for adq Gap	166293.16
Avg Ped Delay (s)	166291.52

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	274	1866	96	490
v/c Ratio	0.59	0.71	0.81	0.18
Control Delay	37.6	8.8	60.8	4.0
Queue Delay	0.0	0.4	0.0	0.0
Total Delay	37.6	9.2	60.8	4.0
Queue Length 50th (ft)	67	228	28	33
Queue Length 95th (ft)	106	507	#95	81
Internal Link Dist (ft)	742	269		1054
Turn Bay Length (ft)			170	
Base Capacity (vph)	831	2623	118	2699
Starvation Cap Reductn	0	263	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.33	0.79	0.81	0.18

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	163	100	1355	306	87	446
Future Volume (vph)	163	100	1355	306	87	446
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		6.0		6.0	6.0
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.94		0.97		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3273		3425		1769	3539
Flt Permitted	0.97		1.00		0.08	1.00
Satd. Flow (perm)	3273		3425		157	3539
Peak-hour factor, PHF	0.96	0.96	0.89	0.89	0.91	0.91
Adj. Flow (vph)	170	104	1522	344	96	490
RTOR Reduction (vph)	47	0	13	0	0	0
Lane Group Flow (vph)	227	0	1853	0	96	490
Confl. Peds. (#/hr)		3		2	2	
Confl. Bikes (#/hr)				4		
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	12.6		76.0		76.0	76.0
Effective Green, g (s)	12.6		76.0		76.0	76.0
Actuated g/C Ratio	0.13		0.76		0.76	0.76
Clearance Time (s)	5.0		6.0		6.0	6.0
Vehicle Extension (s)	2.0		5.5		5.5	5.5
Lane Grp Cap (vph)	414		2613		119	2700
v/s Ratio Prot	c0.07		0.54			0.14
v/s Ratio Perm					c0.61	
v/c Ratio	0.55		0.71		0.81	0.18
Uniform Delay, d1	40.8		6.1		7.3	3.2
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	0.8		1.2		35.8	0.1
Delay (s)	41.6		7.3		43.1	3.3
Level of Service	D		A		D	A
Approach Delay (s)	41.6		7.3			9.8
Approach LOS	D		A			A

Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	99.6	Sum of lost time (s)	11.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	1	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	3
Ped. R. Sidewalk Flow Rate (p/h)	2	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	4620.1	16170.4	10740.9
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	1626.1	0.0	2894.6
Crosswalk Circulation Code	A	-	A
Pedestrian Delay (s/p)	47.3	44.5	47.3
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.24	3.15	2.89
Pedestrian Crosswalk LOS	B	C	C

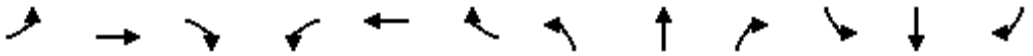
Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	5	6
Total Flow Rate (veh/h)	274	1866	586
Effct. Green for Bike (s)	12.6	76.0	76.0
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	229	1382	1382
Bicycle Delay (s/bike)	43.2	5.3	5.3
Bicycle Compliance	Poor	Good	Good
Bicycle LOS Score	1.20	2.73	1.97
Bicycle LOS	A	C	B

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	41	33	161	162	310	24	687	821	509	387
v/c Ratio	0.17	0.11	0.44	0.45	0.37	0.17	0.59	0.67	1.15	0.23
Control Delay	31.0	0.8	31.2	31.1	5.2	41.7	24.3	3.7	124.4	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.0	0.8	31.2	31.1	5.2	41.7	24.3	3.7	124.4	16.3
Queue Length 50th (ft)	17	0	63	64	0	10	124	0	~146	44
Queue Length 95th (ft)	46	0	147	148	28	42	278	41	#358	145
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		160	165	
Base Capacity (vph)	786	736	596	600	1165	142	1485	1329	443	1747
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.04	0.27	0.27	0.27	0.17	0.46	0.62	1.15	0.22

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



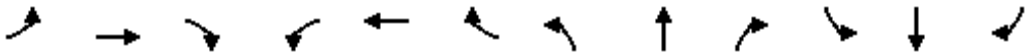
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	13	29	265	7	260	23	646	772	458	340	8
Future Volume (vph)	23	13	29	265	7	260	23	646	772	458	340	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5	
Lane Util. Factor		1.00	1.00	0.95	0.95	0.88	1.00	0.95	1.00	0.97	0.95	
Frpb, ped/bikes		1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.97	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1805	1551	1681	1689	2722	1770	3539	1561	3433	3525	
Flt Permitted		0.97	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1805	1551	1681	1689	2722	1770	3539	1561	3433	3525	
Peak-hour factor, PHF	0.89	0.89	0.89	0.84	0.84	0.84	0.94	0.94	0.94	0.90	0.90	0.90
Adj. Flow (vph)	26	15	33	315	8	310	24	687	821	509	378	9
RTOR Reduction (vph)	0	0	30	0	0	247	0	0	365	0	1	0
Lane Group Flow (vph)	0	41	3	161	162	63	24	687	456	509	386	0
Confl. Peds. (#/hr)	2		4	4		2			9	9		
Confl. Bikes (#/hr)			2						4			6
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)		6.1	6.1	14.7	14.7	14.7	1.6	25.2	39.9	8.8	32.4	
Effective Green, g (s)		6.1	6.1	14.7	14.7	14.7	1.6	25.2	39.9	8.8	32.4	
Actuated g/C Ratio		0.08	0.08	0.20	0.20	0.20	0.02	0.35	0.56	0.12	0.45	
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5	
Vehicle Extension (s)		2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0	3.5	5.0	
Lane Grp Cap (vph)		153	131	344	345	557	39	1242	867	420	1590	
v/s Ratio Prot		c0.02		0.10	0.10		0.01	c0.19	c0.11	c0.15	0.11	
v/s Ratio Perm			0.00			0.02			0.18			
v/c Ratio		0.27	0.02	0.47	0.47	0.11	0.62	0.55	0.53	1.21	0.24	
Uniform Delay, d1		30.8	30.1	25.1	25.1	23.2	34.8	18.8	10.0	31.5	12.1	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.3	0.0	0.4	0.4	0.0	18.5	0.9	0.3	115.6	0.2	
Delay (s)		31.1	30.1	25.5	25.5	23.3	53.3	19.7	10.3	147.1	12.3	
Level of Service		C	C	C	C	C	D	B	B	F	B	
Approach Delay (s)		30.7			24.4			15.2			88.9	
Approach LOS		C			C			B			F	

Intersection Summary			
HCM 2000 Control Delay	38.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	71.8	Sum of lost time (s)	17.0
Intersection Capacity Utilization	78.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	6
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	0	6	1	1
Ped. Right-Left Flow Rate (p/h)	0	3	3	1
Ped. R. Sidewalk Flow Rate (p/h)	1	1	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	117952.4	49133.6	45333.8	294881.1
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	2526.9	2123.0
Crosswalk Circulation Code	-	F	A	A
Pedestrian Delay (s/p)	42.3	42.3	42.3	42.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	3.01	3.43	2.88
Pedestrian Crosswalk LOS	B	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	4	2	4	9
Total Flow Rate (veh/h)	74	633	1532	896
Effct. Green for Bike (s)	9.0	14.7	22.4	32.4
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	5.5	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	180	294	448	648
Bicycle Delay (s/bike)	41.5	36.4	30.2	23.0
Bicycle Compliance	Poor	Poor	Poor	Fair
Bicycle LOS Score	2.72	2.43	2.52	1.98
Bicycle LOS	C	B	C	B

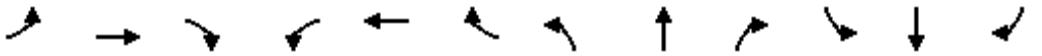


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	152	1782	466	137	633	143	392	303	85	455	581	90
v/c Ratio	0.61	1.04	0.51	0.95	0.40	0.18	0.98	0.50	0.24	0.99	0.88	0.24
Control Delay	64.6	62.7	8.4	121.2	23.4	3.8	91.8	48.1	6.0	91.6	62.6	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.6	62.7	8.4	121.2	23.4	3.8	91.8	48.1	6.0	91.6	62.6	6.5
Queue Length 50th (ft)	59	~786	64	55	171	0	158	112	0	184	231	0
Queue Length 95th (ft)	74	555	66	#105	196	28	#259	159	28	#293	#321	32
Internal Link Dist (ft)		1706			363			1325			863	
Turn Bay Length (ft)	250		250	120		200	300		120	210		120
Base Capacity (vph)	258	1719	906	144	1580	775	402	622	358	459	682	384
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	1.04	0.51	0.95	0.40	0.18	0.98	0.49	0.24	0.99	0.85	0.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	1265	331	112	519	117	376	291	82	414	529	82
Future Volume (veh/h)	108	1265	331	112	519	117	376	291	82	414	529	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	152	1782	466	137	633	143	392	303	85	455	581	90
Peak Hour Factor	0.71	0.71	0.71	0.82	0.82	0.82	0.96	0.96	0.96	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	208	1717	760	144	1651	720	403	593	255	461	652	281
Arrive On Green	0.06	0.48	0.48	0.04	0.46	0.46	0.12	0.17	0.17	0.13	0.18	0.18
Sat Flow, veh/h	3456	3554	1572	3456	3554	1549	3456	3554	1527	3456	3554	1528
Grp Volume(v), veh/h	152	1782	466	137	633	143	392	303	85	455	581	90
Grp Sat Flow(s),veh/h/ln	1728	1777	1572	1728	1777	1549	1728	1777	1527	1728	1777	1528
Q Serve(g_s), s	5.2	58.0	26.1	4.7	13.9	6.5	13.6	9.3	5.9	15.8	19.2	6.1
Cycle Q Clear(g_c), s	5.2	58.0	26.1	4.7	13.9	6.5	13.6	9.3	5.9	15.8	19.2	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	208	1717	760	144	1651	720	403	593	255	461	652	281
V/C Ratio(X)	0.73	1.04	0.61	0.95	0.38	0.20	0.97	0.51	0.33	0.99	0.89	0.32
Avail Cap(c_a), veh/h	259	1717	760	144	1651	720	403	622	267	461	681	293
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	31.0	22.8	57.4	20.9	19.0	52.8	45.5	44.1	51.9	47.8	42.5
Incr Delay (d2), s/veh	7.7	32.2	1.1	60.3	0.1	0.0	37.4	0.9	1.0	38.6	13.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.4	41.1	14.5	5.8	9.5	4.1	12.5	7.4	4.1	14.1	14.6	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.2	63.2	23.9	117.7	21.0	19.0	90.3	46.4	45.1	90.5	61.6	43.3
LnGrp LOS	E	F	C	F	C	B	F	D	D	F	E	D
Approach Vol, veh/h		2400			913			780			1126	
Approach Delay, s/veh		55.6			35.2			68.3			71.8	
Approach LOS		E			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	26.0	9.0	64.0	19.0	28.0	11.2	61.8
Change Period (Y+Rc), s	5.0	6.0	4.0	* 6	5.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	16.0	21.0	5.0	* 58	14.0	23.0	9.0	53.0
Max Q Clear Time (g_c+I1), s	17.8	11.3	6.7	60.0	15.6	21.2	7.2	15.9
Green Ext Time (p_c), s	0.0	1.9	0.0	0.0	0.0	0.9	0.1	3.3

Intersection Summary	
HCM 6th Ctrl Delay	57.4
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

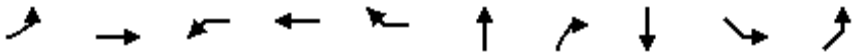
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	90.0	90.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	7	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	3	1	4	0
Ped. R. Sidewalk Flow Rate (p/h)	6	3	2	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	4057.2	8176.2	3883.4	30000.0
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3845.9	1480.5	796.1	0.0
Crosswalk Circulation Code	A	A	A	-
Pedestrian Delay (s/p)	49.5	49.5	49.5	49.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.36	3.25	3.04	3.04
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	1	8	15
Total Flow Rate (veh/h)	2400	913	780	1126
Effct. Green for Bike (s)	58.0	53.3	20.4	22.4
Cross Street Width (ft)	80.0	80.0	80.0	80.0
Through Lanes Number	2	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	967	888	340	373
Bicycle Delay (s/bike)	16.0	18.5	41.5	40.0
Bicycle Compliance	Fair	Fair	Poor	Poor
Bicycle LOS Score	3.48	2.25	2.14	2.43
Bicycle LOS	C	B	B	B

Intersection	
Intersection Delay, s/veh	21.7
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	0
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1390	1008	605	0
Demand Flow Rate, veh/h	1426	1055	617	0
Vehicles Circulating, veh/h	0	276	1426	846
Vehicles Exiting, veh/h	846	1767	0	485
Ped Vol Crossing Leg, #/h	5	5	5	5
Ped Cap Adj	0.994	0.996	1.000	1.000
Approach Delay, s/veh	8.1	9.2	73.9	0.0
Approach LOS	A	A	F	-

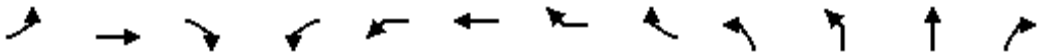
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	R
Assumed Moves	LT	TR	LT	TR	LT	R
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	0.272	0.728
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	670	756	496	559	168	449
Cap Entry Lane, veh/h	1350	1420	1047	1123	364	423
Entry HV Adj Factor	0.975	0.975	0.955	0.955	0.982	0.980
Flow Entry, veh/h	653	737	474	534	165	440
Cap Entry, veh/h	1309	1376	995	1068	357	414
V/C Ratio	0.499	0.535	0.476	0.500	0.462	1.063
Control Delay, s/veh	8.0	8.3	9.2	9.2	20.8	93.8
LOS	A	A	A	A	C	F
95th %tile Queue, veh	3	3	3	3	2	15



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	18	1122	54	643	327	44	82	399	20	20
v/c Ratio	0.21	0.87	0.73	0.43	0.45	0.09	0.13	0.90	0.19	0.07
Control Delay	55.5	38.8	99.2	24.8	15.5	27.1	0.4	58.4	52.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.5	38.8	99.2	24.8	15.5	27.1	0.4	58.4	52.4	0.5
Queue Length 50th (ft)	10	276	30	106	48	15	0	194	11	0
Queue Length 95th (ft)	38	#607	#122	281	204	54	0	#526	41	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	92	1296	74	1491	720	483	633	443	108	362
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.87	0.73	0.43	0.45	0.09	0.13	0.90	0.19	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	17	1041	3	24	26	592	163	138	13	15	13	75
Future Volume (vph)	17	1041	3	24	26	592	163	138	13	15	13	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00				1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.94				1.00	0.98
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85				1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00	1.00				0.97	1.00
Satd. Flow (prot)	1770	3538			1770	3539	1496				1798	1551
Flt Permitted	0.95	1.00			0.95	1.00	1.00				0.78	1.00
Satd. Flow (perm)	1770	3538			1770	3539	1496				1441	1551
Peak-hour factor, PHF	0.93	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	1119	3	26	28	643	177	150	14	16	14	82
RTOR Reduction (vph)	0	0	0	0	0	0	100	0	0	0	0	57
Lane Group Flow (vph)	18	1122	0	0	54	643	227	0	0	0	44	25
Confl. Peds. (#/hr)			1				5	5	2	2		5
Confl. Bikes (#/hr)			2				4	4				5
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	Perm	NA	Perm
Protected Phases	5	2		1	1	6					8	
Permitted Phases							6		8	8		8
Actuated Green, G (s)	1.7	39.5			4.1	40.9	40.9				32.5	32.5
Effective Green, g (s)	1.7	39.5			4.1	40.9	40.9				32.5	32.5
Actuated g/C Ratio	0.02	0.37			0.04	0.38	0.38				0.30	0.30
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0				3.5	3.5
Lane Grp Cap (vph)	28	1302			67	1348	570				436	469
v/s Ratio Prot	0.01	c0.32			c0.03	0.18						
v/s Ratio Perm							0.15				0.03	0.02
v/c Ratio	0.64	0.86			0.81	0.48	0.40				0.10	0.05
Uniform Delay, d1	52.5	31.4			51.2	25.1	24.2				26.9	26.5
Progression Factor	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Incremental Delay, d2	32.0	6.6			46.6	0.6	1.0				0.1	0.1
Delay (s)	84.5	38.0			97.8	25.7	25.2				27.0	26.6
Level of Service	F	D			F	C	C				C	C
Approach Delay (s)		38.7				29.3					26.7	
Approach LOS		D				C					C	

Intersection Summary			
HCM 2000 Control Delay	41.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	107.3	Sum of lost time (s)	27.0
Intersection Capacity Utilization	91.1%	ICU Level of Service	F
Analysis Period (min)	15		

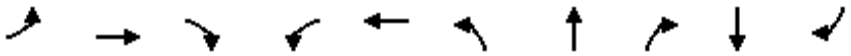
c Critical Lane Group

Movement	SBL	SBT	SBR	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations											
Traffic Volume (vph)	311	10	46	5	5	5	5	5	5	5	5
Future Volume (vph)	311	10	46	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0				5.0		
Lane Util. Factor		1.00			1.00				1.00		
Frpb, ped/bikes		1.00			1.00				1.00		
Flpb, ped/bikes		1.00			1.00				1.00		
Frt		0.98			0.93				0.93		
Flt Protected		0.96			0.98				0.98		
Satd. Flow (prot)		1743			1695				1695		
Flt Permitted		0.73			1.00				0.98		
Satd. Flow (perm)		1322			1737				1695		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	338	11	50	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	0	399	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)	5		2								
Confl. Bikes (#/hr)											
Turn Type	Perm	NA		Perm	Prot			Perm	Prot		
Protected Phases		4			7				3		
Permitted Phases	4			7				3			
Actuated Green, G (s)		32.5			2.1				3.1		
Effective Green, g (s)		32.5			2.1				3.1		
Actuated g/C Ratio		0.30			0.02				0.03		
Clearance Time (s)		5.0			5.0				5.0		
Vehicle Extension (s)		3.5			2.0				1.5		
Lane Grp Cap (vph)		400			33				48		
v/s Ratio Prot											
v/s Ratio Perm		c0.30			c0.01				0.00		
v/c Ratio		1.00			0.61				0.01		
Uniform Delay, d1		37.4			52.2				50.6		
Progression Factor		1.00			1.00				1.00		
Incremental Delay, d2		44.1			19.6				0.0		
Delay (s)		81.4			71.8				50.6		
Level of Service		F			E				D		
Approach Delay (s)		81.4			71.8				50.6		
Approach LOS		F			E				D		

Intersection Summary

Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29670.6	11554.6	0.0	72900.0	24280.4
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2538.8	4584.8	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	47.0	47.0	47.0	47.0	47.0	47.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.85	3.32	2.01	2.00	1.82	1.77
Pedestrian Crosswalk LOS	C	C	B	B	B	B

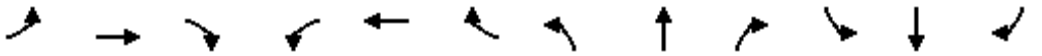
Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	1140	1024	126	399	20	20
Effct. Green for Bike (s)	35.5	40.9	32.5	32.5	6.1	7.1
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	617	711	565	565	106	123
Bicycle Delay (s/bike)	27.6	24.0	29.8	29.6	51.6	50.6
Bicycle Compliance	Fair	Fair	Fair	Fair	Poor	Poor
Bicycle LOS Score	3.00	1.50	2.86	2.59	2.62	2.20
Bicycle LOS	C	A	C	C	C	B



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	27	784	585	347	647	173	175	280	36	13
v/c Ratio	0.23	0.63	0.84	0.69	0.25	0.64	0.64	0.36	0.18	0.04
Control Delay	50.2	29.4	29.5	46.3	16.6	47.1	47.3	4.4	37.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	29.4	29.5	46.3	16.6	47.1	47.3	4.4	37.7	0.2
Queue Length 50th (ft)	14	184	176	92	59	92	93	0	19	0
Queue Length 95th (ft)	49	#383	#505	#199	160	138	141	1	34	0
Internal Link Dist (ft)		217			575		1379		108	
Turn Bay Length (ft)	145		90	310		150				50
Base Capacity (vph)	129	1248	699	501	2630	613	615	775	649	652
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.63	0.84	0.69	0.25	0.28	0.28	0.36	0.06	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	674	503	281	484	40	225	1	182	22	1	8
Future Volume (veh/h)	23	674	503	281	484	40	225	1	182	22	1	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	784	585	347	598	49	347	0	280	34	2	12
Peak Hour Factor	0.86	0.86	0.86	0.81	0.81	0.81	0.65	0.65	0.65	0.64	0.64	0.64
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	1230	534	429	2150	174	711	0	512	73	4	68
Arrive On Green	0.02	0.35	0.35	0.12	0.45	0.45	0.20	0.00	0.20	0.04	0.04	0.04
Sat Flow, veh/h	1781	3554	1542	3456	4799	389	3563	0	1578	1687	99	1555
Grp Volume(v), veh/h	27	784	585	347	422	225	347	0	280	36	0	12
Grp Sat Flow(s),veh/h/ln	1781	1777	1542	1728	1702	1784	1781	0	1578	1786	0	1555
Q Serve(g_s), s	1.3	15.5	29.0	8.2	6.6	6.7	7.2	0.0	12.2	1.6	0.0	0.6
Cycle Q Clear(g_c), s	1.3	15.5	29.0	8.2	6.6	6.7	7.2	0.0	12.2	1.6	0.0	0.6
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	0.94		1.00
Lane Grp Cap(c), veh/h	40	1230	534	429	1525	799	711	0	512	78	0	68
V/C Ratio(X)	0.68	0.64	1.10	0.81	0.28	0.28	0.49	0.00	0.55	0.46	0.00	0.18
Avail Cap(c_a), veh/h	128	1230	534	495	1525	799	1276	0	762	640	0	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.7	23.0	27.4	35.7	14.6	14.6	29.7	0.0	23.3	39.1	0.0	38.6
Incr Delay (d2), s/veh	10.5	2.5	67.8	7.7	0.5	0.9	0.4	0.0	0.7	2.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	10.4	28.4	6.7	4.3	4.7	5.4	0.0	7.7	1.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.1	25.5	95.2	43.4	15.0	15.5	30.1	0.0	24.0	41.7	0.0	39.4
LnGrp LOS	D	C	F	D	B	B	C	A	C	D	A	D
Approach Vol, veh/h		1396			994			627			48	
Approach Delay, s/veh		55.2			25.0			27.4			41.1	
Approach LOS		E			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.4	35.0		9.6	7.9	43.5		22.7				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	12.0	29.0		30.0	6.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	10.2	31.0		3.6	3.3	8.7		14.2				
Green Ext Time (p_c), s	0.2	0.0		0.1	0.0	11.4		2.0				

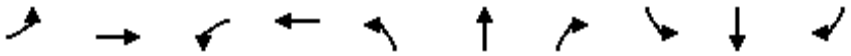
Intersection Summary			
HCM 6th Ctrl Delay		39.5	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

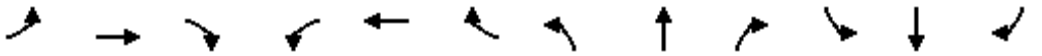
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	105.0	120.0	90.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	8	5	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	14.00	14.00	14.00	14.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	2
Ped. Right-Left Flow Rate (p/h)	1	0	0	4
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	40	25
Right Corner Area per Ped (sq.ft)	2481.0	2078.3	6300.0	1356.7
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3900.3	0.0	5432.4	1699.7
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	52.0	52.0	52.0	52.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.13	3.10	2.77	1.99
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	16	9	0	1
Total Flow Rate (veh/h)	1396	994	628	48
Effct. Green for Bike (s)	30.2	44.9	13.8	9.7
Cross Street Width (ft)	70.0	55.0	87.0	82.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	483	718	221	155
Bicycle Delay (s/bike)	36.2	25.8	49.5	53.2
Bicycle Compliance	Poor	Fair	Poor	Poor
Bicycle LOS Score	2.28	1.66	2.64	1.61
Bicycle LOS	B	B	C	B



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	35	1072	161	460	236	235	439	19	19	16
v/c Ratio	0.30	0.47	0.66	0.16	0.78	0.77	0.60	0.14	0.14	0.06
Control Delay	51.0	23.1	61.8	14.5	55.8	55.0	8.4	42.4	42.5	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	23.1	61.8	14.5	55.8	55.0	8.4	42.4	42.5	0.5
Queue Length 50th (ft)	21	182	110	23	147	146	38	12	12	0
Queue Length 95th (ft)	54	283	176	108	197	195	58	23	23	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	120	2262	328	2897	338	340	784	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.47	0.49	0.16	0.70	0.69	0.56	0.07	0.07	0.04

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	932	54	143	394	15	349	14	338	14	10	10
Future Volume (veh/h)	32	932	54	143	394	15	349	14	338	14	10	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	35	1013	59	161	443	17	466	0	439	19	20	16
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.77	0.77	0.77	0.63	0.63	0.63
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	44	2366	138	191	2874	110	701	0	477	62	61	55
Arrive On Green	0.02	0.48	0.48	0.23	1.00	1.00	0.21	0.00	0.21	0.03	0.03	0.03
Sat Flow, veh/h	1781	4922	286	1668	5040	192	3337	0	1461	1781	1752	1561
Grp Volume(v), veh/h	35	700	372	161	298	162	466	0	439	19	20	16
Grp Sat Flow(s),veh/h/ln	1781	1702	1804	1668	1702	1828	1668	0	1461	1781	1752	1561
Q Serve(g_s), s	2.0	13.4	13.5	9.2	0.0	0.0	12.8	0.0	21.0	1.0	1.1	1.0
Cycle Q Clear(g_c), s	2.0	13.4	13.5	9.2	0.0	0.0	12.8	0.0	21.0	1.0	1.1	1.0
Prop In Lane	1.00		0.16	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	44	1637	867	191	1941	1043	701	0	477	62	61	55
V/C Ratio(X)	0.79	0.43	0.43	0.84	0.15	0.16	0.67	0.00	0.92	0.31	0.33	0.29
Avail Cap(c_a), veh/h	107	1637	867	334	1941	1043	701	0	477	285	280	250
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.89	0.89	0.89	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.5	17.0	17.0	37.7	0.0	0.0	36.3	0.0	32.6	47.1	47.1	47.1
Incr Delay (d2), s/veh	24.2	0.8	1.4	8.7	0.1	0.3	2.4	0.0	23.3	2.7	3.1	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.1	8.7	9.4	6.8	0.1	0.1	9.2	0.0	19.0	0.9	1.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.7	17.7	18.4	46.5	0.1	0.3	38.7	0.0	56.0	49.8	50.2	50.0
LnGrp LOS	E	B	B	D	A	A	D	A	E	D	D	D
Approach Vol, veh/h		1107			621			905			55	
Approach Delay, s/veh		19.7			12.2			47.0			50.0	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.4	52.1		7.5	6.5	61.0		25.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	20.0	27.0		16.0	6.0	41.0		21.0				
Max Q Clear Time (g_c+I1), s	11.2	15.5		3.1	4.0	2.0		23.0				
Green Ext Time (p_c), s	0.3	5.4		0.1	0.0	3.2		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		27.8	
HCM 6th LOS		C	

Notes

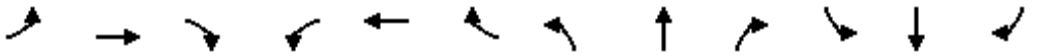
User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	100.0	90.0	100.0	80.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	0.1	8.0	0.1	12.0
Right Corner Size B (ft)	6.0	0.1	10.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.60	0.80	1.00	1.20
Ped. Left-Right Flow Rate (p/h)	0	0	3	1
Ped. Right-Left Flow Rate (p/h)	2	0	8	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21.6	668.2	44.2	270.0
Right Corner Quality of Service	D	A	B	A
Ped. Circulation Area (sq.ft)	6056.1	0.0	1035.7	11234.4
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.93	2.95	2.77	2.18
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	20	11	0	0
Total Flow Rate (veh/h)	1107	621	910	54
Effct. Green for Bike (s)	45.1	57.3	19.5	8.2
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	902	1146	390	164
Bicycle Delay (s/bike)	15.2	9.2	32.4	42.1
Bicycle Compliance	Fair	Good	Poor	Poor
Bicycle LOS Score	1.88	1.61	3.40	2.96
Bicycle LOS	B	B	C	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	506	1085	733	40	238
v/c Ratio	0.64	0.42	0.48	0.13	0.71
Control Delay	28.2	2.7	22.0	30.7	34.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	2.7	22.0	30.7	34.2
Queue Length 50th (ft)	159	43	155	22	93
Queue Length 95th (ft)	145	79	268	40	135
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	795	2608	1528	557	548
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.64	0.42	0.48	0.07	0.43

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	400	857	0	0	521	117	35	3	207	0	0	0
Future Volume (veh/h)	400	857	0	0	521	117	35	3	207	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	506	1085	0	0	599	134	40	3	235			
Peak Hour Factor	0.79	0.79	0.79	0.87	0.87	0.87	0.88	0.88	0.88			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1251	2546	0	0	834	186	339	4	296			
Arrive On Green	0.77	1.00	0.00	0.00	0.29	0.29	0.20	0.20	0.20			
Sat Flow, veh/h	3237	3647	0	0	2971	642	1668	19	1454			
Grp Volume(v), veh/h	506	1085	0	0	369	364	40	0	238			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1743	1668	0	1472			
Q Serve(g_s), s	5.2	0.0	0.0	0.0	18.6	18.7	2.0	0.0	15.4			
Cycle Q Clear(g_c), s	5.2	0.0	0.0	0.0	18.6	18.7	2.0	0.0	15.4			
Prop In Lane	1.00		0.00	0.00		0.37	1.00		0.99			
Lane Grp Cap(c), veh/h	1251	2546	0	0	515	505	339	0	299			
V/C Ratio(X)	0.40	0.43	0.00	0.00	0.72	0.72	0.12	0.00	0.79			
Avail Cap(c_a), veh/h	1251	2546	0	0	515	505	567	0	501			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.85	0.85	0.00	0.00	0.96	0.96	1.00	0.00	1.00			
Uniform Delay (d), s/veh	7.5	0.0	0.0	0.0	31.8	31.9	32.5	0.0	37.8			
Incr Delay (d2), s/veh	0.2	0.4	0.0	0.0	8.0	8.2	0.2	0.0	4.8			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.5	0.3	0.0	0.0	13.7	13.5	1.4	0.0	9.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.7	0.4	0.0	0.0	39.8	40.1	32.7	0.0	42.6			
LnGrp LOS	A	A	A	A	D	D	C	A	D			
Approach Vol, veh/h		1591			733			278				
Approach Delay, s/veh		2.8			39.9			41.2				
Approach LOS		A			D			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.7			42.7	33.0		24.3				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			25.0	29.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			7.2	20.7		17.4				
Green Ext Time (p_c), s		10.7			2.3	2.9		1.6				
Intersection Summary												
HCM 6th Ctrl Delay			17.3									
HCM 6th LOS			B									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	100.0	55.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0	0.1
Right Corner Size B (ft)	6.0	6.0	6.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	7	9	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	3548.2	4628.6	1884.6	0.0
Right Corner Quality of Service	A	A	A	-
Ped. Circulation Area (sq.ft)	0.0	1347.2	1252.8	0.0
Crosswalk Circulation Code	-	A	A	-
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.89	2.74	1.98	2.04
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	7	12	0	0
Total Flow Rate (veh/h)	1591	733	278	0
Effct. Green for Bike (s)	73.7	44.7	18.3	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1474	894	366	0
Bicycle Delay (s/bike)	3.5	15.4	33.4	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.43	1.64	2.19	0.00
Bicycle LOS	B	B	B	

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	395	80	876	957
Demand Flow Rate, veh/h	404	81	894	976
Vehicles Circulating, veh/h	766	894	164	324
Vehicles Exiting, veh/h	534	164	1006	651
Ped Vol Crossing Leg, #/h	5	5	0	0
Ped Cap Adj	0.999	1.000	1.000	1.000
Approach Delay, s/veh	9.9	6.6	6.7	9.0
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	L	TR	L	TR	LT	TR	LT	TR
Assumed Moves	L	TR	L	TR	LT	TR	LT	TR
RT Channelized								
Lane Util	0.220	0.780	0.568	0.432	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	89	315	46	35	420	474	459	517
Cap Entry Lane, veh/h	667	740	593	664	1161	1235	1002	1078
Entry HV Adj Factor	0.978	0.979	0.978	0.993	0.981	0.980	0.980	0.981
Flow Entry, veh/h	87	308	45	35	412	464	450	507
Cap Entry, veh/h	651	724	580	659	1138	1211	982	1058
V/C Ratio	0.134	0.426	0.078	0.053	0.362	0.384	0.458	0.480
Control Delay, s/veh	7.0	10.7	7.1	6.0	6.8	6.7	9.0	8.9
LOS	A	B	A	A	A	A	A	A
95th %tile Queue, veh	0	2	0	0	2	2	2	3

Intersection	
Intersection Delay, s/veh	11.5
Intersection LOS	B

Approach	EB	WB	NB	SB
Entry Lanes	2	2	0	3
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	984	838	0	0
Demand Flow Rate, veh/h	1004	854	0	0
Vehicles Circulating, veh/h	671	0	1542	854
Vehicles Exiting, veh/h	893	1542	133	0
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	16.7	5.4	0.0	0.0
Approach LOS	C	A	-	-

Lane	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR
RT Channelized				
Lane Util	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328
Entry Flow, veh/h	472	532	401	453
Cap Entry Lane, veh/h	728	803	1350	1420
Entry HV Adj Factor	0.980	0.981	0.982	0.980
Flow Entry, veh/h	463	522	394	444
Cap Entry, veh/h	714	787	1325	1392
V/C Ratio	0.648	0.663	0.297	0.319
Control Delay, s/veh	17.1	16.4	5.3	5.4
LOS	C	C	A	A
95th %tile Queue, veh	5	5	1	1

Intersection	
Intersection Delay, s/veh	3.4
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	23	107	123	17
Demand Flow Rate, veh/h	23	109	125	17
Vehicles Circulating, veh/h	105	15	25	109
Vehicles Exiting, veh/h	21	135	103	15
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.1	3.3	3.5	3.0
Approach LOS	A	A	A	A

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	23	109	125	17
Cap Entry Lane, veh/h	1240	1359	1345	1235
Entry HV Adj Factor	0.989	0.980	0.983	0.994
Flow Entry, veh/h	23	107	123	17
Cap Entry, veh/h	1226	1331	1323	1228
V/C Ratio	0.019	0.080	0.093	0.014
Control Delay, s/veh	3.1	3.3	3.5	3.0
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	1	418	340	2	901	343	163	526
v/c Ratio	0.00	1.07	0.21	0.03	0.97	0.38	0.99	0.45
Control Delay	0.0	110.5	0.3	63.0	53.2	7.2	122.6	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	110.5	0.3	63.0	53.2	7.2	122.6	16.5
Queue Length 50th (ft)	0	~324	0	1	582	32	120	163
Queue Length 95th (ft)	0	#721	0	12	#1279	137	#341	498
Internal Link Dist (ft)	160	615			469			438
Turn Bay Length (ft)			180	120		370	490	
Base Capacity (vph)	532	390	1583	59	929	898	164	1158
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.00	1.07	0.21	0.03	0.97	0.38	0.99	0.45

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	1	383	2	313	2	847	322	150	483	1
Future Volume (veh/h)	0	0	1	383	2	313	2	847	322	150	483	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	0	1	416	2	0	2	901	0	163	525	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	0	13	389	2		4	923		165	1090	2
Arrive On Green	0.00	0.00	0.01	0.22	0.22	0.00	0.00	0.49	0.00	0.09	0.58	0.58
Sat Flow, veh/h	0	0	1538	1773	9	1585	1781	1870	1585	1781	1866	4
Grp Volume(v), veh/h	0	0	1	418	0	0	2	901	0	163	0	526
Grp Sat Flow(s),veh/h/ln	0	0	1538	1782	0	1585	1781	1870	1585	1781	0	1870
Q Serve(g_s), s	0.0	0.0	0.1	26.0	0.0	0.0	0.1	55.8	0.0	10.8	0.0	19.3
Cycle Q Clear(g_c), s	0.0	0.0	0.1	26.0	0.0	0.0	0.1	55.8	0.0	10.8	0.0	19.3
Prop In Lane	0.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	13	391	0		4	923		165	0	1092
V/C Ratio(X)	0.00	0.00	0.08	1.07	0.00		0.52	0.98		0.99	0.00	0.48
Avail Cap(c_a), veh/h	0	0	350	391	0		60	931		165	0	1092
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	58.3	46.3	0.0	0.0	59.1	29.3	0.0	53.7	0.0	14.3
Incr Delay (d2), s/veh	0.0	0.0	2.4	65.2	0.0	0.0	80.6	23.6	0.0	65.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.1	26.1	0.0	0.0	0.3	37.2	0.0	12.2	0.0	11.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	60.7	111.5	0.0	0.0	139.7	52.9	0.0	119.3	0.0	14.6
LnGrp LOS	A	A	E	F	A		F	D		F	A	B
Approach Vol, veh/h		1			418	A		903	A		689	
Approach Delay, s/veh		60.7			111.5			53.1			39.4	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.0	64.5		6.0	5.3	75.3		32.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		6.0				
Max Green Setting (Gmax), s	11.0	59.0		27.0	4.0	66.0		26.0				
Max Q Clear Time (g_c+I1), s	12.8	57.8		2.1	2.1	21.3		28.0				
Green Ext Time (p_c), s	0.0	0.7		0.0	0.0	3.4		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			60.5									
HCM 6th LOS			E									

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	30.0	65.0	75.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	2	2	3	3
Number of Right-Turn Islands	0	1	1	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	0.1	15.0	9.0	0.1
Right Corner Size B (ft)	0.1	15.0	9.0	0.1
Right Corner Curb Radius (ft)	0.0	10.0	10.0	0.0
Right Corner Total Area (sq.ft)	0.01	203.50	59.50	0.01
Ped. Left-Right Flow Rate (p/h)	1	1	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	45	50	50
Right Corner Area per Ped (sq.ft)	9.01	83150.0	53470.3	-81.6
Right Corner Quality of Service	E	A	A	F
Ped. Circulation Area (sq.ft)	0.2	8957.0	0.0	0.0
Crosswalk Circulation Code	F	A	-	-
Pedestrian Delay (s/p)	72.5	63.8	63.8	72.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	1.75	2.43	2.85	3.01
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	15	4	7
Total Flow Rate (veh/h)	1	758	1246	689
Effct. Green for Bike (s)	9.1	26.3	59.6	74.3
Cross Street Width (ft)	75.0	75.0	70.0	70.0
Through Lanes Number	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	126	363	822	1025
Bicycle Delay (s/bike)	63.7	49.0	25.2	17.3
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.71	3.96	3.40	2.05
Bicycle LOS	C	D	C	B

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	11	105	203	1386	1106	37
Future Vol, veh/h	11	105	203	1386	1106	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	100	0	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	113	218	1490	1189	40

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2390	615	1229	0	-	0
Stage 1	1209	-	-	-	-	-
Stage 2	1181	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	28	434	563	-	-	-
Stage 1	245	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	17	434	563	-	-	-
Mov Cap-2 Maneuver	17	-	-	-	-	-
Stage 1	150	-	-	-	-	-
Stage 2	254	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	54	2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	563	-	17	434	-	-
HCM Lane V/C Ratio	0.388	-	0.696	0.26	-	-
HCM Control Delay (s)	15.4	-	$ 414.7	16.2	-	-
HCM Lane LOS	C	-	F	C	-	-
HCM 95th %tile Q(veh)	1.8	-	1.8	1	-	-

Approach		
Approach Direction	NB	
Median Present?	No	
Approach Delay(s)	85732064.0	
Level of Service	F	

Crosswalk		
Length (ft)	80	
Lanes Crossed	4	
Veh Vol Crossed	2492	
Ped Vol Crossed	0	
Yield Rate(%)	0	
Ped Platooning	No	
Critical Headway (s)	25.86	
Prob of Delayed X-ing	1.00	
Prob of Blocked Lane	0.99	
Delay for adq Gap	85732064.00	
Avg Ped Delay (s)	85732064.00	

Approach		
Approach Direction	SB	
Median Present?	Yes	
Approach Delay(s)	615.1	
Level of Service	F	

Crosswalk		
Length (ft)	45	30
Lanes Crossed	2	2
Veh Vol Crossed	1106	1386
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	15.86	11.57
Prob of Delayed X-ing	0.99	0.99
Prob of Blocked Lane	0.91	0.89
Delay for adq Gap	408.92	211.81
Avg Ped Delay (s)	405.79	209.35

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	137	51	1600	144	46	1279
v/c Ratio	0.26	0.18	0.73	0.15	0.24	0.52
Control Delay	27.1	9.0	16.1	3.2	8.6	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	9.0	16.1	3.2	8.6	7.7
Queue Length 50th (ft)	28	0	246	1	4	96
Queue Length 95th (ft)	49	25	#646	35	26	318
Internal Link Dist (ft)	316		391			721
Turn Bay Length (ft)					120	
Base Capacity (vph)	1374	653	2178	982	190	2491
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.08	0.73	0.15	0.24	0.51

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	126	47	1536	138	42	1177
Future Volume (veh/h)	126	47	1536	138	42	1177
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	137	51	1600	144	46	1279
Peak Hour Factor	0.92	0.92	0.96	0.96	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	277	127	2172	937	260	2640
Arrive On Green	0.08	0.08	0.61	0.61	0.04	0.74
Sat Flow, veh/h	3456	1585	3647	1533	1781	3647
Grp Volume(v), veh/h	137	51	1600	144	46	1279
Grp Sat Flow(s),veh/h/ln	1728	1585	1777	1533	1781	1777
Q Serve(g_s), s	2.4	1.9	19.8	2.5	0.5	9.0
Cycle Q Clear(g_c), s	2.4	1.9	19.8	2.5	0.5	9.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	277	127	2172	937	260	2640
V/C Ratio(X)	0.49	0.40	0.74	0.15	0.18	0.48
Avail Cap(c_a), veh/h	1612	739	2287	986	311	2858
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	27.2	8.6	5.2	7.9	3.2
Incr Delay (d2), s/veh	1.4	2.0	1.6	0.2	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	3.2	10.1	1.2	0.3	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.8	29.2	10.1	5.4	8.0	3.5
LnGrp LOS	C	C	B	A	A	A
Approach Vol, veh/h	188		1744			1325
Approach Delay, s/veh	28.9		9.7			3.6
Approach LOS	C		A			A

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		52.2		10.0	8.2	44.0
Change Period (Y+Rc), s		6.0		5.0	6.0	6.0
Max Green Setting (Gmax), s		50.0		29.0	4.0	40.0
Max Q Clear Time (g_c+I1), s		11.0		4.4	2.5	21.8
Green Ext Time (p_c), s		21.1		0.8	0.0	16.2

Intersection Summary	
HCM 6th Ctrl Delay	8.4
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.

Approach	WB	NB	SB
Crosswalk Length (ft)	48.6	72.1	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	5	5
Number of Right-Turn Islands	0	0	0
Type of Control	None	None	None
Corresponding Signal Phase	6	2	4
Effective Walk Time (s)	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	7	0	5
Ped. Right-Left Flow Rate (p/h)	4	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	1	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0
85th percentile speed (mph)	25	30	45
Right Corner Area per Ped (sq.ft)	4524.6	6042.2	14580.0
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0
Crosswalk Circulation Code	F	-	F
Pedestrian Delay (s/p)	45.0	45.0	45.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.22	2.93	3.18
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	2	8	6
Total Flow Rate (veh/h)	188	1744	1325
Effct. Green for Bike (s)	11.2	45.1	51.0
Cross Street Width (ft)	70.0	50.0	45.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	8.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	249	1002	1133
Bicycle Delay (s/bike)	34.5	11.2	8.5
Bicycle Compliance	Poor	Fair	Good
Bicycle LOS Score	2.79	2.48	1.63
Bicycle LOS	C	B	B

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	70	1611	56	48	1264
Future Vol, veh/h	23	70	1611	56	48	1264
Conflicting Peds, #/hr	0	0	0	19	19	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	30	-	-	60	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	76	1714	60	51	1345

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2538	906	0	0	1793	0
Stage 1	1763	-	-	-	-	-
Stage 2	775	-	-	-	-	-
Critical Hdwy	6.29	7.14	-	-	5.34	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.67	3.92	-	-	3.12	-
Pot Cap-1 Maneuver	33	240	-	-	159	-
Stage 1	82	-	-	-	-	-
Stage 2	404	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 22	236	-	-	156	-
Mov Cap-2 Maneuver	~ 22	-	-	-	-	-
Stage 1	81	-	-	-	-	-
Stage 2	272	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	141.8	0	1.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	22	236	156	-
HCM Lane V/C Ratio	-	-	1.136	0.322	0.327	-
HCM Control Delay (s)	-	-	$ 490.2	27.3	38.9	-
HCM Lane LOS	-	-	F	D	E	-
HCM 95th %tile Q(veh)	-	-	3.3	1.3	1.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Approach		
Approach Direction	NB	
Median Present?	Yes	
Approach Delay(s)	6304.1	
Level of Service	F	

Crosswalk		
Length (ft)	50	50
Lanes Crossed	3	2
Veh Vol Crossed	1611	1264
Ped Vol Crossed	0	0
Yield Rate(%)	0	0
Ped Platooning	No	No
Critical Headway (s)	17.29	17.29
Prob of Delayed X-ing	1.00	1.00
Prob of Blocked Lane	0.92	0.95
Delay for adq Gap	5095.17	1214.02
Avg Ped Delay (s)	5092.94	1211.21

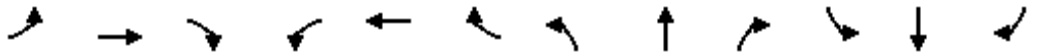
Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	11394861056.0
Level of Service	F

Crosswalk	
Length (ft)	90
Lanes Crossed	5
Veh Vol Crossed	2875
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	28.71
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.99
Delay for adq Gap	11394861056.00
Avg Ped Delay (s)	11394861056.00

Lane Group	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	32	83	68	33	152	1820	17	1335	25
v/c Ratio	0.10	0.18	0.20	0.07	0.66	0.56	0.09	0.77	0.03
Control Delay	18.2	3.2	20.0	0.3	30.3	13.2	10.2	22.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	3.2	20.0	0.3	30.3	13.2	10.2	22.3	0.1
Queue Length 50th (ft)	10	0	22	0	15	99	2	178	0
Queue Length 95th (ft)	28	18	49	0	#144	#418	14	#500	0
Internal Link Dist (ft)	345		372			830		538	
Turn Bay Length (ft)		70		70	110		160		50
Base Capacity (vph)	691	830	707	809	229	3243	191	1732	797
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.10	0.10	0.04	0.66	0.56	0.09	0.77	0.03

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	5	76	46	17	30	140	1610	64	16	1242	23
Future Volume (veh/h)	25	5	76	46	17	30	140	1610	64	16	1242	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.97	1.00		0.95	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	5	83	50	18	33	152	1750	70	17	1335	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	87	9	585	82	18	578	180	2078	83	137	1334	561
Arrive On Green	0.37	0.37	0.37	0.37	0.37	0.37	0.05	0.41	0.41	0.01	0.38	0.38
Sat Flow, veh/h	10	25	1562	10	49	1543	1781	5024	201	1781	3554	1494
Grp Volume(v), veh/h	32	0	83	68	0	33	152	1185	635	17	1335	25
Grp Sat Flow(s),veh/h/ln	35	0	1562	59	0	1543	1781	1702	1821	1781	1777	1494
Q Serve(g_s), s	0.2	0.0	2.8	0.3	0.0	1.1	4.0	25.0	25.1	0.5	30.0	0.8
Cycle Q Clear(g_c), s	29.9	0.0	2.8	29.9	0.0	1.1	4.0	25.0	25.1	0.5	30.0	0.8
Prop In Lane	0.84		1.00	0.74		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	96	0	585	100	0	578	180	1408	753	137	1334	561
V/C Ratio(X)	0.33	0.00	0.14	0.68	0.00	0.06	0.84	0.84	0.84	0.12	1.00	0.04
Avail Cap(c_a), veh/h	98	0	586	102	0	579	180	1408	753	183	1334	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	0.0	16.5	32.6	0.0	16.0	21.2	21.1	21.1	18.3	25.0	15.9
Incr Delay (d2), s/veh	2.8	0.0	0.2	17.9	0.0	0.1	30.9	5.1	9.2	0.3	24.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	1.8	3.3	0.0	0.7	5.5	14.7	16.6	0.3	22.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	0.0	16.7	50.5	0.0	16.0	52.1	26.2	30.3	18.6	49.8	15.9
LnGrp LOS	C	A	B	D	A	B	D	C	C	B	F	B
Approach Vol, veh/h		115			101			1972			1377	
Approach Delay, s/veh		21.7			39.3			29.5			48.8	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	36.0		35.0	5.9	39.1		35.0				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	4.0	30.0		30.0	3.0	31.0		30.0				
Max Q Clear Time (g_c+I1), s	6.0	32.0		31.9	2.5	27.1		31.9				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	3.6		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			37.0									
HCM 6th LOS			D									

Notes

User approved pedestrian interval to be less than phase max green.

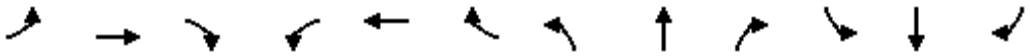
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	60.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	3	6	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	11.0	11.0	0.0	7.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	11	0	8
Ped. Right-Left Flow Rate (p/h)	1	12	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	196592.6	14366.7	25626.3	28063.1
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	6524.9	849.1	0.0	743.6
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	29.8	29.8	40.0	33.3
Pedestrian Compliance Code	Fair	Fair	Poor	Poor
Pedestrian Crosswalk Score	2.02	1.99	3.30	3.26
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	3	10	9
Total Flow Rate (veh/h)	115	101	1972	1377
Effct. Green for Bike (s)	15.1	15.1	41.3	31.5
Cross Street Width (ft)	80.0	80.0	36.0	40.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	378	378	1032	788
Bicycle Delay (s/bike)	26.3	26.4	9.4	14.8
Bicycle Compliance	Fair	Fair	Good	Fair
Bicycle LOS Score	2.97	2.95	3.19	2.24
Bicycle LOS	C	C	C	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	57	153	347	351	332	116	1319	224	420	963
v/c Ratio	0.25	0.64	0.43	0.85	0.56	0.59	0.79	0.23	0.84	0.76
Control Delay	45.2	51.9	38.6	55.3	8.2	62.1	38.6	2.2	62.7	35.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.2	51.9	38.6	55.3	8.2	62.1	38.6	2.2	62.7	35.8
Queue Length 50th (ft)	37	91	106	213	0	80	304	0	149	300
Queue Length 95th (ft)	76	157	169	#436	85	#179	415	35	#262	436
Internal Link Dist (ft)		286		347			362			830
Turn Bay Length (ft)	230				170	200		175	350	
Base Capacity (vph)	386	397	811	411	591	196	1664	966	499	1310
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.39	0.43	0.85	0.56	0.59	0.79	0.23	0.84	0.74

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	93	48	319	136	492	109	1240	211	399	869	46
Future Volume (veh/h)	52	93	48	319	136	492	109	1240	211	399	869	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.95	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	57	101	52	347	438	342	116	1319	224	420	915	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	245	157	81	841	441	357	211	1646	873	485	1180	62
Arrive On Green	0.14	0.14	0.14	0.24	0.24	0.24	0.12	0.32	0.32	0.14	0.34	0.34
Sat Flow, veh/h	1781	1136	585	3563	1870	1512	1781	5106	1548	3456	3427	180
Grp Volume(v), veh/h	57	0	153	347	438	342	116	1319	224	420	474	489
Grp Sat Flow(s),veh/h/ln	1781	0	1721	1781	1870	1512	1781	1702	1548	1728	1777	1830
Q Serve(g_s), s	3.1	0.0	9.3	9.1	25.7	24.6	6.8	26.0	8.2	13.1	26.3	26.3
Cycle Q Clear(g_c), s	3.1	0.0	9.3	9.1	25.7	24.6	6.8	26.0	8.2	13.1	26.3	26.3
Prop In Lane	1.00		0.34	1.00		1.00	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	245	0	237	841	441	357	211	1646	873	485	612	630
V/C Ratio(X)	0.23	0.00	0.65	0.41	0.99	0.96	0.55	0.80	0.26	0.87	0.78	0.78
Avail Cap(c_a), veh/h	388	0	375	841	441	357	211	1669	880	502	661	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	0.0	44.9	35.6	42.0	41.5	45.8	34.1	12.6	46.3	32.3	32.3
Incr Delay (d2), s/veh	0.4	0.0	2.2	1.2	40.9	37.8	1.7	4.2	0.7	17.3	9.3	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	0.0	7.4	7.1	23.0	18.3	5.4	16.2	8.2	10.8	18.0	18.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	0.0	47.1	36.8	82.9	79.3	47.5	38.3	13.3	63.6	41.6	41.4
LnGrp LOS	D	A	D	D	F	E	D	D	B	E	D	D
Approach Vol, veh/h		210			1127			1659			1383	
Approach Delay, s/veh		45.9			67.6			35.6			48.2	
Approach LOS		D			E			D			D	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		20.2	17.1	41.9		31.0	19.5	39.5				
Change Period (Y+Rc), s		5.0	4.0	4.0		5.0	4.0	4.0				
Max Green Setting (Gmax), s		24.0	11.0	41.0		26.0	16.0	36.0				
Max Q Clear Time (g_c+I1), s		11.3	8.8	28.3		27.7	15.1	28.0				
Green Ext Time (p_c), s		0.7	0.0	9.6		0.0	0.4	7.5				

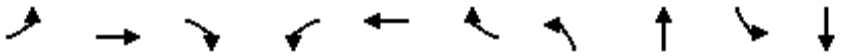
Intersection Summary												
HCM 6th Ctrl Delay			48.3									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.0	75.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	6	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	12.0	6.0
Right Corner Size B (ft)	6.0	6.0	12.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	58.00	655.35
Ped. Left-Right Flow Rate (p/h)	3	3	3	10
Ped. Right-Left Flow Rate (p/h)	5	1	0	10
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	102
Veh. Perm. R. Flow in Walk (v/h)	42	115	155	0
Veh. RTOR Flow in Walk (v/h)	6	114	3	79
85th percentile speed (mph)	30	45	45	45
Right Corner Area per Ped (sq.ft)	53573.6	24545.8	7430.6	21034.9
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	1269.2	2452.8	2128.9	362.7
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	49.5	49.5	52.3	52.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.13	3.06	3.24	3.56
Pedestrian Crosswalk LOS	B	C	C	D

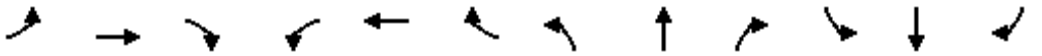
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	14	7	3
Total Flow Rate (veh/h)	210	1030	1659	1383
Effct. Green for Bike (s)	14.0	26.1	36.1	39.9
Cross Street Width (ft)	83.0	78.0	65.0	66.0
Through Lanes Number	1	1	3	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	4.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	233	435	602	665
Bicycle Delay (s/bike)	47.0	37.0	29.4	26.8
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	3.18	4.45	2.18	2.75
Bicycle LOS	C	D	B	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	292	222	295	264	221	208	466	1210	210	1154
v/c Ratio	0.65	0.61	0.55	0.59	0.61	0.44	0.80	0.65	0.61	0.77
Control Delay	50.6	45.5	8.2	48.6	45.3	7.8	53.1	30.1	53.8	37.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.6	45.5	8.2	48.6	45.3	7.8	53.1	30.1	53.8	37.8
Queue Length 50th (ft)	92	133	0	84	134	0	148	232	67	244
Queue Length 95th (ft)	158	220	68	140	212	56	#276	362	123	#394
Internal Link Dist (ft)		461			455			697		1255
Turn Bay Length (ft)	240		240	300		230	300		200	
Base Capacity (vph)	544	382	554	1156	646	674	612	1854	374	1495
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.58	0.53	0.23	0.34	0.31	0.76	0.65	0.56	0.77

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	204	271	243	203	191	452	1079	95	193	949	112
Future Volume (veh/h)	269	204	271	243	203	191	452	1079	95	193	949	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	292	222	295	264	221	208	466	1112	98	210	1032	122
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	385	372	308	376	367	305	557	1813	160	289	1397	165
Arrive On Green	0.11	0.20	0.20	0.11	0.20	0.20	0.16	0.38	0.38	0.08	0.30	0.30
Sat Flow, veh/h	3456	1870	1549	3456	1870	1551	3456	4769	420	3456	4618	545
Grp Volume(v), veh/h	292	222	295	264	221	208	466	793	417	210	760	394
Grp Sat Flow(s),veh/h/ln	1728	1870	1549	1728	1870	1551	1728	1702	1785	1728	1702	1759
Q Serve(g_s), s	7.5	9.9	17.3	6.8	9.9	11.4	12.0	17.3	17.4	5.5	18.4	18.5
Cycle Q Clear(g_c), s	7.5	9.9	17.3	6.8	9.9	11.4	12.0	17.3	17.4	5.5	18.4	18.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.31
Lane Grp Cap(c), veh/h	385	372	308	376	367	305	557	1294	679	289	1029	532
V/C Ratio(X)	0.76	0.60	0.96	0.70	0.60	0.68	0.84	0.61	0.61	0.73	0.74	0.74
Avail Cap(c_a), veh/h	601	372	308	1278	712	590	676	1369	718	413	1110	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	33.5	36.4	39.5	33.7	34.3	37.4	23.0	23.0	41.1	28.8	28.8
Incr Delay (d2), s/veh	3.1	2.6	39.7	2.4	1.6	2.7	7.6	1.5	2.9	3.7	3.7	7.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.0	8.3	15.0	5.4	8.2	8.0	9.2	10.8	11.6	4.3	12.0	13.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	36.1	76.1	41.9	35.3	37.0	45.0	24.5	25.9	44.8	32.5	35.8
LnGrp LOS	D	D	E	D	D	D	D	C	C	D	C	D
Approach Vol, veh/h		809			693			1676			1364	
Approach Delay, s/veh		53.1			38.3			30.6			35.3	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	33.8	15.0	23.3	12.7	41.0	15.3	23.1
Change Period (Y+Rc), s	5.0	6.0	5.0	5.0	5.0	6.0	5.0	5.0
Max Green Setting (Gmax), s	18.0	30.0	34.0	17.0	11.0	37.0	16.0	35.0
Max Q Clear Time (g_c+I1), s	14.0	20.5	8.8	19.3	7.5	19.4	9.5	13.4
Green Ext Time (p_c), s	0.8	7.3	1.3	0.0	0.3	12.6	0.7	2.4

Intersection Summary	
HCM 6th Ctrl Delay	37.2
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

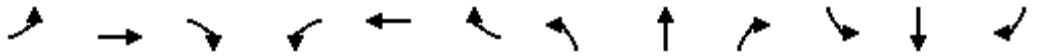
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	64.0	100.0	100.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	6	6	8	8
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	Actuated
Corresponding Signal Phase	2	6	4	8
Effective Walk Time (s)	9.0	9.0	0.0	9.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	0	5	0	0
Ped. Right-Left Flow Rate (p/h)	2	2	0	5
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	107	2	0	25
Veh. RTOR Flow in Walk (v/h)	61	24	0	10
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	44935.8	7489.3	12811.3	12811.3
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3628.0	1451.2	0.0	1961.9
Crosswalk Circulation Code	A	A	-	A
Pedestrian Delay (s/p)	51.3	51.3	60.0	51.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.77	2.67	3.34	3.30
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	3	3	3	3
Total Flow Rate (veh/h)	809	693	1676	1364
Effct. Green for Bike (s)	19.8	19.7	37.5	30.3
Cross Street Width (ft)	100.0	99.0	80.0	60.0
Through Lanes Number	1	1	3	3
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	330	328	625	505
Bicycle Delay (s/bike)	41.9	42.0	28.4	33.6
Bicycle Compliance	Poor	Poor	Fair	Poor
Bicycle LOS Score	4.42	2.93	2.42	1.94
Bicycle LOS	D	C	B	B

Lane Group	EBL	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	76	78	57	77	91	1852	35	1579	86
v/c Ratio	0.46	0.27	0.33	0.28	0.46	0.72	0.26	0.63	0.08
Control Delay	45.1	7.7	40.3	9.7	49.3	12.5	45.4	10.3	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.1	7.7	40.3	9.7	49.3	12.5	45.4	10.3	2.8
Queue Length 50th (ft)	41	0	30	0	26	360	19	247	4
Queue Length 95th (ft)	85	28	67	32	#55	545	51	375	21
Internal Link Dist (ft)				233		1200		376	
Turn Bay Length (ft)	100	100			150		100		100
Base Capacity (vph)	524	688	559	681	197	2610	138	2693	1219
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.11	0.10	0.11	0.46	0.71	0.25	0.59	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	0	72	52	0	71	84	1656	48	32	1453	79
Future Volume (veh/h)	70	0	72	52	0	71	84	1656	48	32	1453	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	0	78	57	0	77	91	1800	52	35	1579	86
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	216	251	213	275	0	213	158	2239	64	49	2194	973
Arrive On Green	0.13	0.00	0.13	0.13	0.00	0.13	0.05	0.64	0.64	0.03	0.62	0.62
Sat Flow, veh/h	1322	1870	1585	1321	0	1585	3456	3524	101	1781	3554	1576
Grp Volume(v), veh/h	76	0	78	57	0	77	91	903	949	35	1579	86
Grp Sat Flow(s),veh/h/ln	1322	1870	1585	1321	0	1585	1728	1777	1849	1781	1777	1576
Q Serve(g_s), s	4.1	0.0	3.3	2.9	0.0	3.3	1.9	27.9	28.4	1.4	22.6	1.6
Cycle Q Clear(g_c), s	7.4	0.0	3.3	2.9	0.0	3.3	1.9	27.9	28.4	1.4	22.6	1.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	216	251	213	275	0	213	158	1129	1174	49	2194	973
V/C Ratio(X)	0.35	0.00	0.37	0.21	0.00	0.36	0.58	0.80	0.81	0.71	0.72	0.09
Avail Cap(c_a), veh/h	595	786	667	651	0	664	210	1391	1447	147	2859	1268
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	0.0	29.2	29.0	0.0	29.1	34.6	10.0	10.1	35.7	9.7	5.7
Incr Delay (d2), s/veh	1.0	0.0	1.1	0.4	0.0	1.0	3.3	2.8	2.9	16.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	0.0	2.3	1.7	0.0	2.3	1.5	12.7	13.4	1.5	10.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	0.0	30.2	29.3	0.0	30.2	37.9	12.8	13.0	52.6	10.4	5.8
LnGrp LOS	C	A	C	C	A	C	D	B	B	D	B	A
Approach Vol, veh/h		154			134			1943			1700	
Approach Delay, s/veh		31.8			29.8			14.1			11.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	52.8		14.6	7.9	51.5		14.6				
Change Period (Y+Rc), s	4.5	5.8		* 4.7	4.5	5.8		* 4.7				
Max Green Setting (Gmax), s	6.1	57.9		* 31	4.5	59.5		* 31				
Max Q Clear Time (g_c+I1), s	3.4	30.4		9.4	3.9	24.6		5.3				
Green Ext Time (p_c), s	0.0	16.6		0.6	0.0	16.3		0.7				

Intersection Summary			
HCM 6th Ctrl Delay		14.0	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

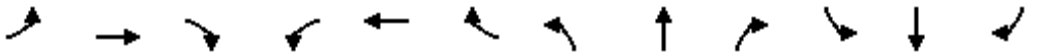
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	50.5	36.0	72.7	83.6
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	None	None	None
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	0.0	0.0	0.0	0.0
Right Corner Size A (ft)	9.0	9.0	9.0	9.0
Right Corner Size B (ft)	9.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	81.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	0	0	0
85th percentile speed (mph)	30	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	55.0	55.0	55.0	55.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.23	2.02	3.36	3.36
Pedestrian Crosswalk LOS	B	B	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	0	0
Total Flow Rate (veh/h)	154	134	1943	1700
Effct. Green for Bike (s)	10.1	10.1	58.7	57.4
Cross Street Width (ft)	72.7	83.6	36.0	50.5
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	No	No	No	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	184	184	1067	1044
Bicycle Delay (s/bike)	45.4	45.4	12.0	12.6
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.93	3.06	3.71	3.73
Bicycle LOS	C	C	D	D

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	29	11	113	200	99	103	1777	131	60	1605	44
v/c Ratio	0.12	0.03	0.30	0.80	0.27	0.49	0.82	0.13	0.31	0.77	0.05
Control Delay	32.6	30.2	8.1	60.9	10.7	18.1	21.5	5.7	11.6	20.5	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	47.6	0.0	0.0	0.0	0.0
Total Delay	32.6	30.2	8.1	60.9	10.7	18.1	69.1	5.7	11.6	20.5	1.2
Queue Length 50th (ft)	16	6	0	123	6	17	448	14	10	370	0
Queue Length 95th (ft)	37	19	41	185	45	64	#764	49	31	#667	7
Internal Link Dist (ft)		315			411		222			1200	
Turn Bay Length (ft)	260		260	100		130		130	120		120
Base Capacity (vph)	413	596	583	447	576	209	2177	971	193	2087	950
Starvation Cap Reductn	0	0	0	0	0	0	670	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.02	0.19	0.45	0.17	0.49	1.18	0.13	0.31	0.77	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	10	104	184	11	80	97	1670	123	57	1525	42
Future Volume (veh/h)	27	10	104	184	11	80	97	1670	123	57	1525	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.97	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	29	11	0	200	12	87	103	1777	131	60	1605	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	314		301	33	238	252	2244	974	206	2220	975
Arrive On Green	0.17	0.17	0.00	0.17	0.17	0.17	0.05	0.63	0.63	0.04	0.62	0.62
Sat Flow, veh/h	1296	1870	1585	1404	196	1419	1781	3554	1543	1781	3554	1560
Grp Volume(v), veh/h	29	11	0	200	0	99	103	1777	131	60	1605	44
Grp Sat Flow(s),veh/h/ln	1296	1870	1585	1404	0	1615	1781	1777	1543	1781	1777	1560
Q Serve(g_s), s	2.0	0.5	0.0	13.9	0.0	5.4	2.0	36.9	3.4	1.2	30.9	1.1
Cycle Q Clear(g_c), s	7.5	0.5	0.0	14.4	0.0	5.4	2.0	36.9	3.4	1.2	30.9	1.1
Prop In Lane	1.00		1.00	1.00		0.88	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	219	314		301	0	271	252	2244	974	206	2220	975
V/C Ratio(X)	0.13	0.03		0.66	0.00	0.36	0.41	0.79	0.13	0.29	0.72	0.05
Avail Cap(c_a), veh/h	416	599		514	0	517	257	2244	974	223	2220	975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	0.50	0.50	0.50	0.77	0.77	0.77
Uniform Delay (d), s/veh	40.2	34.8	0.0	40.8	0.0	36.9	12.9	13.6	7.4	14.6	12.8	7.2
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.9	0.0	0.3	0.2	1.5	0.1	0.6	1.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.2	0.4	0.0	8.5	0.0	3.9	1.4	16.4	1.8	1.0	15.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	34.8	0.0	41.8	0.0	37.2	13.1	15.1	7.6	15.2	14.4	7.3
LnGrp LOS	D	C		D	A	D	B	B	A	B	B	A
Approach Vol, veh/h		40	A		299			2011			1709	
Approach Delay, s/veh		38.8			40.3			14.5			14.3	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.7	68.5		21.8	9.1	69.1		21.8				
Change Period (Y+Rc), s	5.0	6.0		5.0	5.0	6.0		5.0				
Max Green Setting (Gmax), s	5.0	47.0		32.0	5.0	47.0		32.0				
Max Q Clear Time (g_c+I1), s	4.0	32.9		16.4	3.2	38.9		9.5				
Green Ext Time (p_c), s	0.0	13.2		0.4	0.0	7.9		0.0				

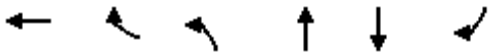
Intersection Summary			
HCM 6th Ctrl Delay		16.5	
HCM 6th LOS		B	

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	70.0	50.0	90.0	100.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	6	6
Number of Right-Turn Islands	1	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8	4
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	10.0	10.0	10.0	6.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	50.0	20.0	20.0	30.0
Right Corner Total Area (sq.ft)	655.35	14.00	14.00	655.35
Ped. Left-Right Flow Rate (p/h)	0	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	52	38	62	10
Veh. Perm. R. Flow in Walk (v/h)	19	79	56	21
Veh. RTOR Flow in Walk (v/h)	51	19	22	1
85th percentile speed (mph)	25	25	45	45
Right Corner Area per Ped (sq.ft)	0.0	0.0	0.0	0.0
Right Corner Quality of Service	-	-	-	-
Ped. Circulation Area (sq.ft)	0.0	0.0	0.0	0.0
Crosswalk Circulation Code	-	-	-	-
Pedestrian Delay (s/p)	42.3	42.3	42.3	42.3
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.49	2.16	3.54	3.35
Pedestrian Crosswalk LOS	B	B	D	C

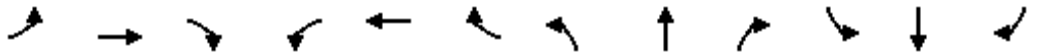
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	4
Total Flow Rate (veh/h)	153	299	2011	1709
Effct. Green for Bike (s)	18.0	18.0	61.5	59.0
Cross Street Width (ft)	86.0	90.0	42.0	52.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	7.5	6.0
Striped Parking Lane Width (ft)	0.0	0.0	8.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	7.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	Yes	No
Bicycle Lane Capacity (bike/h)	360	360	1230	1180
Bicycle Delay (s/bike)	33.6	33.6	7.4	8.4
Bicycle Compliance	Poor	Poor	Good	Good
Bicycle LOS Score	3.13	3.43	2.25	0.98
Bicycle LOS	C	C	B	A



Lane Group	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	166	361	58	1707	1059	750
v/c Ratio	0.41	0.82	0.49	0.80	0.57	0.68
Control Delay	22.7	32.8	43.8	12.7	12.1	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.8	0.4
Total Delay	22.7	32.8	43.8	12.7	12.9	5.0
Queue Length 50th (ft)	50	85	21	217	143	0
Queue Length 95th (ft)	98	#217	#66	306	202	52
Internal Link Dist (ft)	805			920	222	
Turn Bay Length (ft)		190	220			120
Base Capacity (vph)	411	448	119	2144	1861	1106
Starvation Cap Reductn	0	0	0	0	463	76
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.81	0.49	0.80	0.76	0.73

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



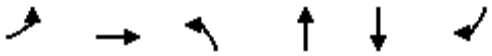
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	151	2	332	53	1570	0	0	974	690
Future Volume (veh/h)	0	0	0	151	2	332	53	1570	0	0	974	690
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1752	1752	1752	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h				164	2	361	58	1707	0	0	1059	750
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				10	10	10	10	2	0	0	2	10
Cap, veh/h				412	5	371	70	2132	0	0	1746	710
Arrive On Green				0.25	0.25	0.25	0.04	0.60	0.00	0.00	0.49	0.49
Sat Flow, veh/h				1649	20	1485	1668	3647	0	0	3647	1446
Grp Volume(v), veh/h				166	0	361	58	1707	0	0	1059	750
Grp Sat Flow(s),veh/h/ln				1669	0	1485	1668	1777	0	0	1777	1446
Q Serve(g_s), s				5.0	0.0	14.5	2.1	22.2	0.0	0.0	13.0	29.5
Cycle Q Clear(g_c), s				5.0	0.0	14.5	2.1	22.2	0.0	0.0	13.0	29.5
Prop In Lane				0.99		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				417	0	371	70	2132	0	0	1746	710
V/C Ratio(X)				0.40	0.00	0.97	0.83	0.80	0.00	0.00	0.61	1.06
Avail Cap(c_a), veh/h				417	0	371	111	2132	0	0	1746	710
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.77	0.77	0.00	0.00	0.59	0.59
Uniform Delay (d), s/veh				18.7	0.0	22.3	28.5	9.2	0.0	0.0	11.1	15.3
Incr Delay (d2), s/veh				0.6	0.0	39.3	19.0	2.5	0.0	0.0	0.9	42.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				3.3	0.0	13.5	2.0	9.3	0.0	0.0	6.5	20.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				19.4	0.0	61.6	47.5	11.8	0.0	0.0	12.0	57.4
LnGrp LOS				B	A	E	D	B	A	A	B	F
Approach Vol, veh/h					527			1765			1809	
Approach Delay, s/veh					48.3			12.9			30.8	
Approach LOS					D			B			C	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	6.5	34.5				41.0		19.0				
Change Period (Y+Rc), s	4.0	5.0				5.0		4.0				
Max Green Setting (Gmax), s	4.0	28.0				36.0		15.0				
Max Q Clear Time (g_c+I1), s	4.1	31.5				24.2		16.5				
Green Ext Time (p_c), s	0.0	0.0				8.5		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		25.4
HCM 6th LOS		C

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	40.0	50.0	75.0	100.0
Crosswalk Width (ft)	10.0	10.0	10.0	12.0
Total Number of Lanes Crossed	1	2	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	None	None
Corresponding Signal Phase	2	6	0	8
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	0.1	7.0	7.0
Right Corner Size B (ft)	7.0	7.0	7.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	0.70	0.70	49.00	0.70
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	54	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	340	0	0	0
Veh. RTOR Flow in Walk (v/h)	0	129	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	630.0	144.0	11011.5	602.9
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3991.1	3858.6	0.0	0.0
Crosswalk Circulation Code	A	A	-	-
Pedestrian Delay (s/p)	21.7	21.7	30.0	30.0
Pedestrian Compliance Code	Fair	Fair	Fair	Fair
Pedestrian Crosswalk Score	2.27	2.14	3.17	3.43
Pedestrian Crosswalk LOS	B	B	C	C

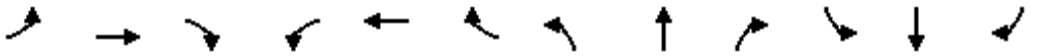
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	7	7
Total Flow Rate (veh/h)	0	527	1765	1809
Effct. Green for Bike (s)	0.0	14.6	36.4	31.6
Cross Street Width (ft)	75.0	90.0	50.0	40.0
Through Lanes Number	0	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	8.0	2.0	3.5
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	0	487	1213	1053
Bicycle Delay (s/bike)	0.0	17.2	4.7	6.7
Bicycle Compliance		Fair	Good	Good
Bicycle LOS Score	0.00	2.41	2.39	2.16
Bicycle LOS		B	B	B



Lane Group	EBL	EBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	386	374	158	1075	877	340
v/c Ratio	0.80	0.67	0.50	0.53	0.73	0.31
Control Delay	39.7	21.7	38.1	13.0	29.4	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.7	21.7	38.1	13.0	29.4	1.2
Queue Length 50th (ft)	187	108	78	186	217	0
Queue Length 95th (ft)	#302	208	141	242	287	18
Internal Link Dist (ft)		181		445	920	
Turn Bay Length (ft)	610		400			133
Base Capacity (vph)	531	603	313	2021	1197	1119
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.62	0.50	0.53	0.73	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	582	0	117	0	0	0	152	1032	0	0	807	313
Future Volume (veh/h)	582	0	117	0	0	0	152	1032	0	0	807	313
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1870	1870	1870	1870	1870	1752	1870	0	0	1870	1752
Adj Flow Rate, veh/h	752	0	0	0	0	0	158	1075	0	0	877	340
Peak Hour Factor	0.92	0.92	0.92	0.25	0.25	0.25	0.96	0.96	0.96	0.92	0.92	0.92
Percent Heavy Veh, %	10	2	2	2	2	2	10	2	0	0	2	10
Cap, veh/h	894	501	0	0	2	0	128	2184	0	0	1766	1115
Arrive On Green	0.27	0.00	0.00	0.00	0.00	0.00	0.08	0.61	0.00	0.00	0.50	0.50
Sat Flow, veh/h	3337	1870	0	0	1870	0	1668	3647	0	0	3647	1445
Grp Volume(v), veh/h	752	0	0	0	0	0	158	1075	0	0	877	340
Grp Sat Flow(s),veh/h/ln	1668	1870	0	0	1870	0	1668	1777	0	0	1777	1445
Q Serve(g_s), s	18.1	0.0	0.0	0.0	0.0	0.0	6.5	14.2	0.0	0.0	14.0	6.2
Cycle Q Clear(g_c), s	18.1	0.0	0.0	0.0	0.0	0.0	6.5	14.2	0.0	0.0	14.0	6.2
Prop In Lane	1.00		0.00	0.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	894	501	0	0	2	0	128	2184	0	0	1766	1115
V/C Ratio(X)	0.84	0.00	0.00	0.00	0.00	0.00	1.24	0.49	0.00	0.00	0.50	0.30
Avail Cap(c_a), veh/h	1138	638	0	0	88	0	128	2184	0	0	1766	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.80	0.80
Uniform Delay (d), s/veh	29.4	0.0	0.0	0.0	0.0	0.0	39.3	9.1	0.0	0.0	14.3	3.1
Incr Delay (d2), s/veh	4.7	0.0	0.0	0.0	0.0	0.0	157.3	0.8	0.0	0.0	0.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.1	0.0	0.0	0.0	0.0	0.0	13.6	8.0	0.0	0.0	8.3	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	0.0	0.0	0.0	0.0	196.5	9.9	0.0	0.0	15.1	3.6
LnGrp LOS	C	A	A	A	A	A	F	A	A	A	B	A
Approach Vol, veh/h		752			0			1233			1217	
Approach Delay, s/veh		34.1			0.0			33.8			11.9	
Approach LOS		C						C			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.0	48.2		26.8		58.2		0.0				
Change Period (Y+Rc), s	3.5	6.0		4.0		6.0		4.0				
Max Green Setting (Gmax), s	6.5	28.0		29.0		38.0		4.0				
Max Q Clear Time (g_c+I1), s	8.5	16.0		20.1		16.2		0.0				
Green Ext Time (p_c), s	0.0	5.7		2.7		7.6		0.0				

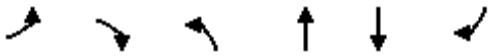
Intersection Summary												
HCM 6th Ctrl Delay			25.5									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	80.0	14.0	80.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	10.0
Total Number of Lanes Crossed	3	1	5	5
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	None
Corresponding Signal Phase	2	6	3	6
Effective Walk Time (s)	9.0	9.0	0.0	0.0
Right Corner Size A (ft)	0.1	12.0	12.0	7.0
Right Corner Size B (ft)	12.0	7.0	12.0	0.1
Right Corner Curb Radius (ft)	30.0	15.0	0.0	40.0
Right Corner Total Area (sq.ft)	655.35	35.62	144.00	655.35
Ped. Left-Right Flow Rate (p/h)	1	2	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	105	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	123	0	167	0
Veh. RTOR Flow in Walk (v/h)	58	0	0	0
85th percentile speed (mph)	30	30	45	45
Right Corner Area per Ped (sq.ft)	589815.0	7993.3	32378.8	589772.5
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	9841.5	2220.6	0.0	0.0
Crosswalk Circulation Code	A	A	-	-
Pedestrian Delay (s/p)	34.0	34.0	42.5	42.5
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.58	1.42	2.96	3.16
Pedestrian Crosswalk LOS	C	A	C	C

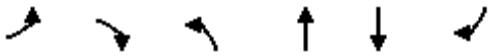
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	0	0	3	8
Total Flow Rate (veh/h)	760	0	1233	1217
Effct. Green for Bike (s)	26.5	4.6	48.5	28.8
Cross Street Width (ft)	70.0	80.0	70.0	55.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	2.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	624	108	1141	678
Bicycle Delay (s/bike)	20.1	38.0	7.8	18.7
Bicycle Compliance	Fair	Poor	Good	Fair
Bicycle LOS Score	3.88	1.39	2.36	2.33
Bicycle LOS	D	A	B	B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	718	283	349	261	623	749
v/c Ratio	0.83	0.44	0.89	0.23	0.91	0.78
Control Delay	41.2	6.0	48.4	8.2	45.1	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	6.0	48.4	8.2	45.1	15.5
Queue Length 50th (ft)	201	0	139	59	319	208
Queue Length 95th (ft)	#294	60	#302	95	#517	331
Internal Link Dist (ft)	581			440	335	
Turn Bay Length (ft)		180	200			
Base Capacity (vph)	867	640	390	1198	748	965
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.44	0.89	0.22	0.83	0.78

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	661	260	321	240	598	719
Future Volume (veh/h)	661	260	321	240	598	719
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1945	1870	1870	1870	1870
Adj Flow Rate, veh/h	718	283	349	261	623	749
Peak Hour Factor	0.92	0.92	0.92	0.92	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	849	405	388	1151	741	998
Arrive On Green	0.25	0.25	0.15	0.62	0.40	0.40
Sat Flow, veh/h	3456	1648	1781	1870	1870	1536
Grp Volume(v), veh/h	718	283	349	261	623	749
Grp Sat Flow(s),veh/h/ln	1728	1648	1781	1870	1870	1536
Q Serve(g_s), s	17.1	13.5	10.6	5.4	26.0	29.5
Cycle Q Clear(g_c), s	17.1	13.5	10.6	5.4	26.0	29.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	849	405	388	1151	741	998
V/C Ratio(X)	0.85	0.70	0.90	0.23	0.84	0.75
Avail Cap(c_a), veh/h	880	420	430	1213	758	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	29.7	20.6	7.4	23.6	10.8
Incr Delay (d2), s/veh	8.8	7.2	20.3	0.1	8.6	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.1	18.6	9.9	3.2	17.9	23.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.8	36.9	40.9	7.5	32.2	14.2
LnGrp LOS	D	D	D	A	C	B
Approach Vol, veh/h	1001			610	1372	
Approach Delay, s/veh	39.0			26.6	22.3	
Approach LOS	D			C	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		59.1		27.2	18.9	40.2
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s		56.0		22.0	15.0	35.0
Max Q Clear Time (g_c+I1), s		7.4		19.1	12.6	31.5
Green Ext Time (p_c), s		1.9		2.1	0.3	2.7

Intersection Summary		
HCM 6th Ctrl Delay	28.8	
HCM 6th LOS	C	

Approach	EB	NB	SB
Crosswalk Length (ft)	80.0	60.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	4	3	4
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	None
Corresponding Signal Phase	6	4	2
Effective Walk Time (s)	8.0	8.0	0.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	30.0	0.0	30.0
Right Corner Total Area (sq.ft)	655.35	36.00	655.35
Ped. Left-Right Flow Rate (p/h)	2	0	0
Ped. Right-Left Flow Rate (p/h)	1	0	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	0	0
Veh. Perm. R. Flow in Walk (v/h)	435	52	0
Veh. RTOR Flow in Walk (v/h)	17	0	0
85th percentile speed (mph)	45	45	40
Right Corner Area per Ped (sq.ft)	196589.4	0.0	196573.9
Right Corner Quality of Service	A	-	A
Ped. Circulation Area (sq.ft)	1061.9	0.0	0.0
Crosswalk Circulation Code	A	-	-
Pedestrian Delay (s/p)	37.4	37.4	45.0
Pedestrian Compliance Code	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.97	2.68	2.91
Pedestrian Crosswalk LOS	C	C	C

Approach	EB	NB	SB
Bicycle Flow Rate (bike/h)	0	8	7
Total Flow Rate (veh/h)	1001	610	1372
Effct. Green for Bike (s)	22.1	53.2	32.2
Cross Street Width (ft)	50.0	66.0	65.0
Through Lanes Number	2	1	1
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	Yes	No
Bicycle Lane Capacity (bike/h)	491	1182	716
Bicycle Delay (s/bike)	25.6	7.6	18.6
Bicycle Compliance	Fair	Good	Fair
Bicycle LOS Score	1.86	2.29	3.53
Bicycle LOS	B	B	D

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	153	705	232	0	1356
Future Vol, veh/h	0	153	705	232	0	1356
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	95	95	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	166	742	244	0	1458

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	493	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	522	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	522	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.1	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	522	-
HCM Lane V/C Ratio	-	-	0.319	-
HCM Control Delay (s)	-	-	15.1	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	1.4	-

Approach	
Approach Direction	NB
Median Present?	No
Approach Delay(s)	92505.0
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2061
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.93
Delay for adq Gap	92506.74
Avg Ped Delay (s)	92504.99

Approach	
Approach Direction	SB
Median Present?	No
Approach Delay(s)	92505.0
Level of Service	F

Crosswalk	
Length (ft)	56
Lanes Crossed	4
Veh Vol Crossed	2061
Ped Vol Crossed	0
Yield Rate(%)	0
Ped Platooning	No
Critical Headway (s)	19.00
Prob of Delayed X-ing	1.00
Prob of Blocked Lane	0.93
Delay for adq Gap	92506.74
Avg Ped Delay (s)	92504.99

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	730	1069	176	1092
v/c Ratio	0.79	0.53	0.73	0.53
Control Delay	27.1	9.9	33.9	10.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	27.1	9.9	33.9	10.3
Queue Length 50th (ft)	134	124	49	133
Queue Length 95th (ft)	193	208	#183	220
Internal Link Dist (ft)	742	269		1054
Turn Bay Length (ft)			170	
Base Capacity (vph)	1254	2318	277	2369
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.58	0.46	0.64	0.46

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	426	246	853	162	160	994
Future Volume (vph)	426	246	853	162	160	994
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		6.0		6.0	6.0
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	0.99		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.95		0.98		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3276		3442		1770	3539
Flt Permitted	0.97		1.00		0.22	1.00
Satd. Flow (perm)	3276		3442		413	3539
Peak-hour factor, PHF	0.92	0.92	0.95	0.95	0.91	0.91
Adj. Flow (vph)	463	267	898	171	176	1092
RTOR Reduction (vph)	99	0	19	0	0	0
Lane Group Flow (vph)	631	0	1050	0	176	1092
Confl. Peds. (#/hr)	1	6				
Confl. Bikes (#/hr)				3		
Turn Type	Prot		NA		Perm	NA
Protected Phases	8		2			6
Permitted Phases					6	
Actuated Green, G (s)	17.6		40.8		40.8	40.8
Effective Green, g (s)	17.6		40.8		40.8	40.8
Actuated g/C Ratio	0.25		0.59		0.59	0.59
Clearance Time (s)	5.0		6.0		6.0	6.0
Vehicle Extension (s)	2.0		5.5		5.5	5.5
Lane Grp Cap (vph)	830		2023		242	2080
v/s Ratio Prot	c0.19		0.31			0.31
v/s Ratio Perm					c0.43	
v/c Ratio	0.76		0.52		0.73	0.53
Uniform Delay, d1	23.9		8.5		10.3	8.5
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	3.6		0.5		13.4	0.5
Delay (s)	27.5		9.0		23.7	9.1
Level of Service	C		A		C	A
Approach Delay (s)	27.5		9.0			11.1
Approach LOS	C		A			B

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	69.4	Sum of lost time (s)	11.0
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

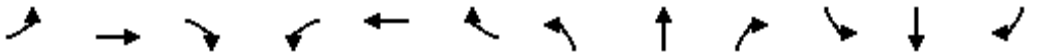
Approach	WB	NB	SB
Crosswalk Length (ft)	75.0	70.0	75.0
Crosswalk Width (ft)	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	5
Number of Right-Turn Islands	0	0	0
Type of Control	Actuated	Actuated	Actuated
Corresponding Signal Phase	2	6	8
Effective Walk Time (s)	8.0	11.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	36.00	36.00	36.00
Ped. Left-Right Flow Rate (p/h)	0	0	5
Ped. Right-Left Flow Rate (p/h)	0	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	32	98	0
Veh. Perm. R. Flow in Walk (v/h)	292	0	45
Veh. RTOR Flow in Walk (v/h)	37	33	0
85th percentile speed (mph)	25	40	40
Right Corner Area per Ped (sq.ft)	5366.2	32362.8	4622.8
Right Corner Quality of Service	A	A	A
Ped. Circulation Area (sq.ft)	0.0	15891.9	2044.8
Crosswalk Circulation Code	-	A	A
Pedestrian Delay (s/p)	32.4	29.8	32.4
Pedestrian Compliance Code	Poor	Fair	Poor
Pedestrian Crosswalk Score	2.33	3.16	2.93
Pedestrian Crosswalk LOS	B	C	C

Approach	WB	NB	SB
Bicycle Flow Rate (bike/h)	6	7	7
Total Flow Rate (veh/h)	730	1069	1268
Effct. Green for Bike (s)	17.6	40.8	40.8
Cross Street Width (ft)	60.0	60.0	65.0
Through Lanes Number	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	5.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0
Paved Shoulder Width (ft)	8.5	0.0	0.0
Curb Is Present?	Yes	Yes	Yes
On Street Parking?	No	No	No
Bicycle Lane Capacity (bike/h)	440	1020	1020
Bicycle Delay (s/bike)	24.4	9.6	9.6
Bicycle Compliance	Fair	Good	Good
Bicycle LOS Score	1.58	2.07	2.53
Bicycle LOS	B	B	C

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	25	20	310	316	662	26	826	397	440	872
v/c Ratio	0.13	0.07	0.73	0.74	0.56	0.24	0.75	0.38	0.75	0.51
Control Delay	34.9	0.5	42.4	43.0	4.7	47.7	33.2	1.9	44.2	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	0.5	42.4	43.0	4.7	47.7	33.2	1.9	44.2	19.4
Queue Length 50th (ft)	13	0	154	157	0	13	206	0	115	147
Queue Length 95th (ft)	34	0	#377	#385	50	46	#420	30	#255	350
Internal Link Dist (ft)	106			702			1054			1697
Turn Bay Length (ft)					250	140		160	165	
Base Capacity (vph)	607	609	459	461	1224	112	1107	1077	588	1720
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.03	0.68	0.69	0.54	0.23	0.75	0.37	0.75	0.51

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



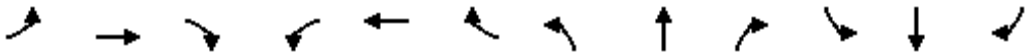
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	10	18	559	17	609	25	785	377	405	758	44
Future Volume (vph)	13	10	18	559	17	609	25	785	377	405	758	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5	
Lane Util. Factor		1.00	1.00	0.95	0.95	0.88	1.00	0.95	1.00	0.97	0.95	
Frpb, ped/bikes		1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.99	1.00	1.00	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected		0.97	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1812	1551	1681	1690	2721	1770	3539	1560	3433	3505	
Flt Permitted		0.97	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)		1812	1551	1681	1690	2721	1770	3539	1560	3433	3505	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92
Adj. Flow (vph)	14	11	20	608	18	662	26	826	397	440	824	48
RTOR Reduction (vph)	0	0	18	0	0	504	0	0	173	0	3	0
Lane Group Flow (vph)	0	25	2	310	316	158	26	826	224	440	869	0
Confl. Peds. (#/hr)	1		6	6		1	3		9	9		3
Confl. Bikes (#/hr)			1			1			7			3
Turn Type	Split	NA	Perm	Split	NA	Perm	Prot	NA	pm+ov	Prot	NA	
Protected Phases	4	4		8	8		5	2	8	1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)		6.6	6.6	20.7	20.7	20.7	1.8	28.1	48.8	14.1	40.4	
Effective Green, g (s)		6.6	6.6	20.7	20.7	20.7	1.8	28.1	48.8	14.1	40.4	
Actuated g/C Ratio		0.08	0.08	0.24	0.24	0.24	0.02	0.32	0.56	0.16	0.47	
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5	3.5	4.5	4.5	3.5	4.5	
Vehicle Extension (s)		2.0	2.0	2.0	2.0	2.0	2.0	5.0	2.0	3.5	5.0	
Lane Grp Cap (vph)		138	118	402	404	651	36	1149	880	559	1637	
v/s Ratio Prot		c0.01		0.18	c0.19		0.01	c0.23	0.06	c0.13	0.25	
v/s Ratio Perm			0.00			0.06			0.08			
v/c Ratio		0.18	0.01	0.77	0.78	0.24	0.72	0.72	0.25	0.79	0.53	
Uniform Delay, d1		37.4	36.9	30.7	30.8	26.6	42.1	25.7	9.6	34.8	16.3	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.2	0.0	8.1	8.8	0.1	45.7	2.7	0.1	7.4	0.6	
Delay (s)		37.6	37.0	38.8	39.6	26.6	87.8	28.4	9.6	42.2	16.9	
Level of Service		D	D	D	D	C	F	C	A	D	B	
Approach Delay (s)		37.3			32.7			23.7			25.4	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM 2000 Control Delay	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	86.5	Sum of lost time (s)	17.0
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	60.0	65.0	80.0	60.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	3	4	6	6
Number of Right-Turn Islands	0	1	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	8.0	8.0	8.0	8.0
Right Corner Size A (ft)	6.0	6.0	6.0	6.0
Right Corner Size B (ft)	6.0	6.0	6.0	6.0
Right Corner Curb Radius (ft)	20.0	20.0	20.0	20.0
Right Corner Total Area (sq.ft)	655.35	655.35	655.35	655.35
Ped. Left-Right Flow Rate (p/h)	2	3	6	1
Ped. Right-Left Flow Rate (p/h)	1	6	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	1	1
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	6	624	27	252
Veh. RTOR Flow in Walk (v/h)	26	204	339	1
85th percentile speed (mph)	25	45	40	40
Right Corner Area per Ped (sq.ft)	58942.3	53583.9	36852.9	117940.6
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	3187.2	0.0	1599.1	3760.7
Crosswalk Circulation Code	A	F	A	A
Pedestrian Delay (s/p)	44.8	44.8	44.8	44.8
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.02	3.05	3.53	3.07
Pedestrian Crosswalk LOS	B	C	D	C

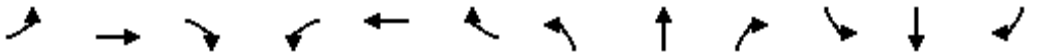
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	8	3	10
Total Flow Rate (veh/h)	45	1288	1249	1312
Effct. Green for Bike (s)	8.8	20.8	25.7	40.4
Cross Street Width (ft)	68.0	66.0	57.0	56.0
Through Lanes Number	1	1	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	5.5	5.5	5.5
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	168	396	490	770
Bicycle Delay (s/bike)	44.1	33.9	30.0	20.0
Bicycle Compliance	Poor	Poor	Fair	Fair
Bicycle LOS Score	2.67	3.52	2.28	2.32
Bicycle LOS	C	D	B	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	111	462	218	229	982	289	599	984	116	219	669	167
v/c Ratio	0.72	0.55	0.38	0.62	0.95	0.46	0.97	0.82	0.18	0.72	0.77	0.29
Control Delay	68.8	32.8	4.4	45.9	51.1	7.9	66.7	33.8	0.9	54.1	37.8	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.8	32.8	4.4	45.9	51.1	7.9	66.7	33.8	0.9	54.1	37.8	1.8
Queue Length 50th (ft)	32	122	0	64	287	17	176	264	0	63	184	0
Queue Length 95th (ft)	#75	172	37	102	#418	80	#285	342	4	#112	246	7
Internal Link Dist (ft)		1706			363			1325			863	
Turn Bay Length (ft)	250		250	120		200	300		120	210		120
Base Capacity (vph)	154	847	567	387	1038	634	620	1237	666	310	918	589
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.55	0.38	0.59	0.95	0.46	0.97	0.80	0.17	0.71	0.73	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	425	201	211	903	266	551	905	107	208	636	159
Future Volume (veh/h)	102	425	201	211	903	266	551	905	107	208	636	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	462	218	229	982	289	599	984	116	219	669	167
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	897	399	310	1052	468	635	1179	514	294	828	359
Arrive On Green	0.05	0.25	0.25	0.09	0.30	0.30	0.18	0.33	0.33	0.08	0.23	0.23
Sat Flow, veh/h	3456	3554	1581	3456	3554	1582	3456	3554	1549	3456	3554	1543
Grp Volume(v), veh/h	111	462	218	229	982	289	599	984	116	219	669	167
Grp Sat Flow(s),veh/h/ln	1728	1777	1581	1728	1777	1582	1728	1777	1549	1728	1777	1543
Q Serve(g_s), s	2.8	9.7	10.4	5.6	23.4	13.7	14.9	22.3	4.7	5.4	15.5	8.1
Cycle Q Clear(g_c), s	2.8	9.7	10.4	5.6	23.4	13.7	14.9	22.3	4.7	5.4	15.5	8.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	159	897	399	310	1052	468	635	1179	514	294	828	359
V/C Ratio(X)	0.70	0.52	0.55	0.74	0.93	0.62	0.94	0.83	0.23	0.75	0.81	0.46
Avail Cap(c_a), veh/h	159	897	399	397	1062	473	635	1266	552	318	939	408
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	28.0	28.2	38.6	29.8	26.4	35.1	26.9	21.0	38.9	31.6	28.7
Incr Delay (d2), s/veh	12.7	0.2	0.9	5.3	14.1	1.8	22.5	4.9	0.3	7.9	5.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.5	7.1	6.9	4.5	16.8	8.8	12.5	14.6	3.0	4.5	11.1	5.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	28.2	29.1	43.9	43.8	28.1	57.6	31.8	21.3	46.8	36.6	29.9
LnGrp LOS	D	C	C	D	D	C	E	C	C	D	D	C
Approach Vol, veh/h		791			1500			1699			1055	
Approach Delay, s/veh		32.0			40.8			40.2			37.6	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	34.9	11.8	28.0	21.0	26.3	8.0	31.8
Change Period (Y+Rc), s	5.0	6.0	4.0	* 6	5.0	6.0	4.0	6.0
Max Green Setting (Gmax), s	8.0	31.0	10.0	* 21	16.0	23.0	4.0	26.0
Max Q Clear Time (g_c+I1), s	7.4	24.3	7.6	12.4	16.9	17.5	4.8	25.4
Green Ext Time (p_c), s	0.0	4.3	0.2	1.8	0.0	2.8	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

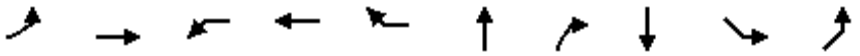
Approach	EB	WB	NB	SB
Crosswalk Length (ft)	90.0	90.0	90.0	90.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	7	7	7
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	6	2	4	8
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	1	0	0	1
Ped. Right-Left Flow Rate (p/h)	2	3	2	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	38	72
Veh. Perm. R. Flow in Walk (v/h)	47	28	80	37
Veh. RTOR Flow in Walk (v/h)	68	32	8	6
85th percentile speed (mph)	40	40	40	40
Right Corner Area per Ped (sq.ft)	17982.7	22456.7	17982.7	22489.2
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	5216.7	5320.6	7235.5	14622.8
Crosswalk Circulation Code	A	A	A	A
Pedestrian Delay (s/p)	34.7	34.7	34.7	34.7
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.16	3.07	3.18	3.16
Pedestrian Crosswalk LOS	C	C	C	C

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	1	2	15	8
Total Flow Rate (veh/h)	791	1500	1699	1055
Effct. Green for Bike (s)	21.2	25.8	30.0	21.8
Cross Street Width (ft)	80.0	80.0	80.0	80.0
Through Lanes Number	2	2	2	2
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	471	573	667	484
Bicycle Delay (s/bike)	26.3	22.9	20.2	25.9
Bicycle Compliance	Fair	Fair	Fair	Fair
Bicycle LOS Score	2.15	2.73	2.90	2.37
Bicycle LOS	B	C	C	B

Intersection	
Intersection Delay, s/veh	22.7
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	0
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	875	1760	202	0
Demand Flow Rate, veh/h	913	1838	205	0
Vehicles Circulating, veh/h	0	357	912	1317
Vehicles Exiting, veh/h	1317	760	0	878
Ped Vol Crossing Leg, #/h	5	5	5	5
Ped Cap Adj	0.994	0.996	1.000	1.000
Approach Delay, s/veh	5.7	32.8	7.9	0.0
Approach LOS	A	D	A	-

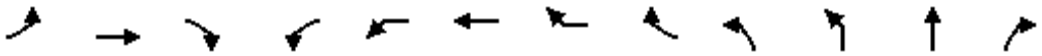
Lane	Left	Right	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR	LT	R
Assumed Moves	LT	TR	LT	TR	LT	R
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	0.400	0.600
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	429	484	864	974	82	123
Cap Entry Lane, veh/h	1350	1420	972	1048	583	654
Entry HV Adj Factor	0.959	0.959	0.957	0.958	0.986	0.984
Flow Entry, veh/h	411	464	827	933	81	121
Cap Entry, veh/h	1287	1354	927	1000	575	643
V/C Ratio	0.320	0.343	0.892	0.933	0.141	0.188
Control Delay, s/veh	5.7	5.8	30.5	34.9	8.0	7.8
LOS	A	A	D	D	A	A
95th %tile Queue, veh	1	2	12	15	0	1



Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	NBR	SBT	SEL	NEL
Lane Group Flow (vph)	35	791	168	1096	588	29	48	222	20	20
v/c Ratio	0.37	0.70	0.71	0.69	0.76	0.09	0.09	0.72	0.14	0.06
Control Delay	54.8	31.3	55.4	26.6	25.9	27.4	0.4	43.4	44.6	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.8	31.3	55.4	26.6	25.9	27.4	0.4	43.4	44.6	0.3
Queue Length 50th (ft)	14	135	65	181	131	9	0	81	8	0
Queue Length 95th (ft)	#69	#407	#252	#580	#563	38	0	218	38	0
Internal Link Dist (ft)		1719		554		194		224	126	151
Turn Bay Length (ft)	115		115		100		50			
Base Capacity (vph)	95	1145	238	1600	773	533	686	492	140	439
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.69	0.71	0.69	0.76	0.05	0.07	0.45	0.14	0.05

Intersection Summary

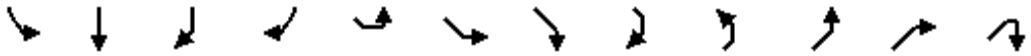
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL2	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	32	725	3	79	81	1041	305	254	8	12	6	44
Future Volume (vph)	32	725	3	79	81	1041	305	254	8	12	6	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Lane Util. Factor	1.00	0.95			1.00	0.95	1.00				1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00	1.00	0.95				1.00	0.97
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Frt	1.00	1.00			1.00	1.00	0.85				1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00	1.00				0.96	1.00
Satd. Flow (prot)	1770	3537			1770	3539	1504				1789	1536
Flt Permitted	0.95	1.00			0.95	1.00	1.00				0.79	1.00
Satd. Flow (perm)	1770	3537			1770	3539	1504				1464	1536
Peak-hour factor, PHF	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	788	3	83	85	1096	321	267	9	13	7	48
RTOR Reduction (vph)	0	0	0	0	0	0	111	0	0	0	0	38
Lane Group Flow (vph)	35	791	0	0	168	1096	477	0	0	0	29	10
Confl. Peds. (#/hr)			4				1	1	2	2		12
Confl. Bikes (#/hr)			1				14	14				1
Turn Type	Prot	NA		Prot	Prot	NA	Perm		Perm	Perm	NA	Perm
Protected Phases	5	2		1	1	6					8	
Permitted Phases							6		8	8		8
Actuated Green, G (s)	2.2	28.0			10.6	35.4	35.4				18.0	18.0
Effective Green, g (s)	2.2	28.0			10.6	35.4	35.4				18.0	18.0
Actuated g/C Ratio	0.03	0.32			0.12	0.41	0.41				0.21	0.21
Clearance Time (s)	6.0	6.0			5.0	6.0	6.0				5.0	5.0
Vehicle Extension (s)	1.5	5.0			1.5	5.0	5.0				3.5	3.5
Lane Grp Cap (vph)	44	1134			214	1435	609				301	316
v/s Ratio Prot	0.02	0.22			c0.09	0.31						
v/s Ratio Perm							c0.32				0.02	0.01
v/c Ratio	0.80	0.70			0.79	0.76	0.78				0.10	0.03
Uniform Delay, d1	42.3	25.9			37.2	22.3	22.6				28.1	27.7
Progression Factor	1.00	1.00			1.00	1.00	1.00				1.00	1.00
Incremental Delay, d2	59.8	2.4			15.8	2.9	7.5				0.2	0.0
Delay (s)	102.1	28.3			53.1	25.3	30.1				28.2	27.7
Level of Service	F	C			D	C	C				C	C
Approach Delay (s)		31.5				29.3					27.9	
Approach LOS		C				C					C	

Intersection Summary			
HCM 2000 Control Delay	31.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	87.3	Sum of lost time (s)	27.0
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

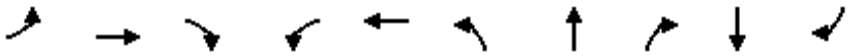


Movement	SBL	SBT	SBR	SBR2	SEL2	SEL	SER	SER2	NEL2	NEL	NER	NER2
Lane Configurations												
Traffic Volume (vph)	156	5	23	20	5	5	5	5	5	5	5	5
Future Volume (vph)	156	5	23	20	5	5	5	5	5	5	5	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0				5.0				5.0		
Lane Util. Factor		1.00				1.00				1.00		
Frpb, ped/bikes		1.00				1.00				1.00		
Flpb, ped/bikes		0.99				1.00				1.00		
Frt		0.97				0.93				0.93		
Flt Protected		0.96				0.98				0.98		
Satd. Flow (prot)		1722				1695				1695		
Flt Permitted		0.76				1.00				0.98		
Satd. Flow (perm)		1354				1737				1695		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	170	5	25	22	5	5	5	5	5	5	5	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	19	0	0
Lane Group Flow (vph)	0	222	0	0	0	20	0	0	0	1	0	0
Confl. Peds. (#/hr)	12		2	2								
Confl. Bikes (#/hr)												
Turn Type	Perm	NA			Perm	Prot			Perm	Prot		
Protected Phases		4				7				3		
Permitted Phases	4				7				3			
Actuated Green, G (s)		18.0				1.9				2.8		
Effective Green, g (s)		18.0				1.9				2.8		
Actuated g/C Ratio		0.21				0.02				0.03		
Clearance Time (s)		5.0				5.0				5.0		
Vehicle Extension (s)		3.5				2.0				1.5		
Lane Grp Cap (vph)		279				37				54		
v/s Ratio Prot												
v/s Ratio Perm		c0.16				c0.01				0.00		
v/c Ratio		0.80				0.54				0.01		
Uniform Delay, d1		32.9				42.3				40.9		
Progression Factor		1.00				1.00				1.00		
Incremental Delay, d2		14.8				8.4				0.0		
Delay (s)		47.7				50.6				40.9		
Level of Service		D				D				D		
Approach Delay (s)		47.7				50.6				40.9		
Approach LOS		D				D				D		

Intersection Summary

Approach	EB	WB	NB	SB	SE	NE
Crosswalk Length (ft)	67.3	71.7	39.6	24.9	24.1	32.6
Crosswalk Width (ft)	10.0	10.0	10.0	10.0	12.0	12.0
Total Number of Lanes Crossed	5	6	3	2	2	2
Number of Right-Turn Islands	0	0	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6	6	2
Effective Walk Time (s)	11.0	11.0	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	9.0	11.0	9.0	10.0	9.0	9.0
Right Corner Size B (ft)	9.0	12.0	10.0	9.0	9.0	9.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	81.00	132.00	90.00	90.00	81.00	81.00
Ped. Left-Right Flow Rate (p/h)	0	1	1	0	0	0
Ped. Right-Left Flow Rate (p/h)	0	2	1	0	0	0
Ped. R. Sidewalk Flow Rate (p/h)	1	1	2	0	1	1
Veh. Perm. L. Flow in Walk (v/h)	8	137	8	1	0	0
Veh. Perm. R. Flow in Walk (v/h)	14	29	0	38	0	0
Veh. RTOR Flow in Walk (v/h)	0	26	0	22	0	0
85th percentile speed (mph)	45	45	25	25	25	25
Right Corner Area per Ped (sq.ft)	72900.0	29673.7	11556.4	0.0	72900.0	24282.5
Right Corner Quality of Service	A	A	A	-	A	A
Ped. Circulation Area (sq.ft)	0.0	2869.7	5032.2	0.0	0.0	0.0
Crosswalk Circulation Code	-	A	A	-	-	-
Pedestrian Delay (s/p)	42.1	42.1	42.1	42.1	42.1	42.1
Pedestrian Compliance Code	Poor	Poor	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.89	3.39	2.01	1.97	1.87	1.78
Pedestrian Crosswalk LOS	C	C	B	B	B	B

Approach	EB	WB	NB	SB	SE	NE
Bicycle Flow Rate (bike/h)	6	12	16	3	0	0
Total Flow Rate (veh/h)	826	1852	77	222	20	20
Effct. Green for Bike (s)	25.0	35.4	18.0	18.0	6.3	7.2
Cross Street Width (ft)	32.6	24.9	71.7	24.1	67.3	39.6
Through Lanes Number	2	2	1	1	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	0.0	6.0	0.0	0.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0	0.0	0.0
Curb Is Present?	No	Yes	Yes	Yes	Yes	Yes
On Street Parking?	No	No	Yes	Yes	No	Yes
Bicycle Lane Capacity (bike/h)	476	674	343	343	120	137
Bicycle Delay (s/bike)	30.6	23.2	36.3	36.1	46.4	45.5
Bicycle Compliance	Poor	Fair	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.74	2.18	2.78	2.29	2.62	2.20
Bicycle LOS	C	B	C	B	C	B

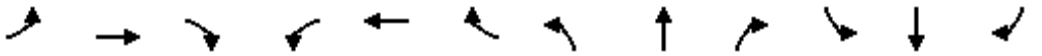


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	33	664	400	343	909	368	375	429	43	32
v/c Ratio	0.33	0.65	0.67	1.42	0.50	0.79	0.80	0.52	0.21	0.11
Control Delay	55.4	34.2	21.8	247.8	27.9	44.6	45.5	4.7	39.0	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.4	34.2	21.8	247.8	27.9	44.6	45.5	4.7	39.0	0.7
Queue Length 50th (ft)	18	171	90	~136	157	192	196	0	23	0
Queue Length 95th (ft)	#58	#346	#294	#295	283	#441	#451	65	54	0
Internal Link Dist (ft)		217			575		1379		108	
Turn Bay Length (ft)	145		90	310		150				50
Base Capacity (vph)	103	1035	600	241	1834	590	591	825	625	640
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.64	0.67	1.42	0.50	0.62	0.63	0.52	0.07	0.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	611	368	316	798	39	677	6	395	37	3	29
Future Volume (veh/h)	30	611	368	316	798	39	677	6	395	37	3	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	664	400	343	867	42	741	0	429	40	3	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	46	1051	458	249	1703	82	1066	0	582	75	6	70
Arrive On Green	0.03	0.30	0.30	0.07	0.34	0.34	0.30	0.00	0.30	0.05	0.05	0.05
Sat Flow, veh/h	1781	3554	1549	3456	4979	240	3563	0	1563	1663	125	1549
Grp Volume(v), veh/h	33	664	400	343	592	317	741	0	429	43	0	32
Grp Sat Flow(s),veh/h/ln	1781	1777	1549	1728	1702	1815	1781	0	1563	1787	0	1549
Q Serve(g_s), s	1.5	13.5	20.4	6.0	11.6	11.6	15.3	0.0	19.8	2.0	0.0	1.7
Cycle Q Clear(g_c), s	1.5	13.5	20.4	6.0	11.6	11.6	15.3	0.0	19.8	2.0	0.0	1.7
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	0.93		1.00
Lane Grp Cap(c), veh/h	46	1051	458	249	1164	621	1066	0	582	81	0	70
V/C Ratio(X)	0.72	0.63	0.87	1.38	0.51	0.51	0.70	0.00	0.74	0.53	0.00	0.46
Avail Cap(c_a), veh/h	107	1065	464	249	1164	621	1282	0	676	643	0	557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.3	25.4	27.9	38.7	21.9	21.9	25.9	0.0	22.7	38.9	0.0	38.8
Incr Delay (d2), s/veh	11.0	2.9	20.0	194.0	1.6	3.0	1.1	0.0	3.3	3.3	0.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.4	9.5	14.5	15.5	8.0	8.8	10.3	0.0	11.5	1.7	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	28.3	47.9	232.7	23.4	24.9	27.0	0.0	26.0	42.2	0.0	41.6
LnGrp LOS	D	C	D	F	C	C	C	A	C	D	A	D
Approach Vol, veh/h		1097			1252			1170			75	
Approach Delay, s/veh		36.2			81.1			26.6			42.0	
Approach LOS		D			F			C			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	30.7		9.8	8.1	34.5		31.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	6.0	25.0		30.0	5.0	26.0		30.0				
Max Q Clear Time (g_c+I1), s	8.0	22.4		4.0	3.5	13.6		21.8				
Green Ext Time (p_c), s	0.0	2.2		0.2	0.0	8.9		3.1				

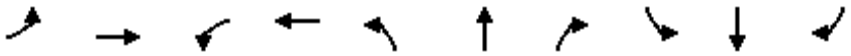
Intersection Summary			
HCM 6th Ctrl Delay		48.8	
HCM 6th LOS		D	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	105.0	120.0	90.0	50.0
Crosswalk Width (ft)	12.0	12.0	12.0	12.0
Total Number of Lanes Crossed	7	8	5	3
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	Actuated	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	11.0	11.0	11.0	11.0
Right Corner Size A (ft)	10.0	10.0	10.0	10.0
Right Corner Size B (ft)	10.0	10.0	10.0	10.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	100.00	100.00	100.00	100.00
Ped. Left-Right Flow Rate (p/h)	1	0	1	1
Ped. Right-Left Flow Rate (p/h)	0	0	1	2
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	19	12	0	0
Veh. Perm. R. Flow in Walk (v/h)	3	41	58	24
Veh. RTOR Flow in Walk (v/h)	2	3	37	3
85th percentile speed (mph)	45	40	40	25
Right Corner Area per Ped (sq.ft)	29980.4	29980.4	44970.6	22455.9
Right Corner Quality of Service	A	A	A	A
Ped. Circulation Area (sq.ft)	12748.1	0.0	5948.2	3716.7
Crosswalk Circulation Code	A	-	A	A
Pedestrian Delay (s/p)	47.0	47.0	47.0	47.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.21	3.15	2.86	2.00
Pedestrian Crosswalk LOS	C	C	C	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	10	15	4	3
Total Flow Rate (veh/h)	1097	1252	1172	75
Effct. Green for Bike (s)	25.8	32.2	24.7	10.1
Cross Street Width (ft)	80.0	55.0	97.0	100.0
Through Lanes Number	2	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	7.0	6.0	6.0	6.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	0.0	0.0
Curb Is Present?	Yes	Yes	Yes	Yes
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	449	560	430	176
Bicycle Delay (s/bike)	34.8	30.0	35.5	47.9
Bicycle Compliance	Poor	Poor	Poor	Poor
Bicycle LOS Score	2.19	1.80	3.69	1.93
Bicycle LOS	B	B	D	B

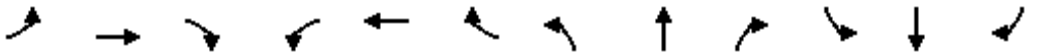


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	40	1154	181	827	318	322	239	19	26	25
v/c Ratio	0.33	0.59	0.74	0.32	0.81	0.82	0.31	0.13	0.19	0.10
Control Delay	51.8	28.1	69.4	14.7	52.0	52.4	3.1	42.0	43.5	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	28.1	69.4	14.7	52.0	52.4	3.1	42.0	43.5	0.7
Queue Length 50th (ft)	25	230	117	65	193	196	0	12	16	0
Queue Length 95th (ft)	59	308	m#199	160	#340	#344	42	32	40	0
Internal Link Dist (ft)		1018		1020		210			213	
Turn Bay Length (ft)	100		260				275			100
Base Capacity (vph)	123	1953	262	2604	425	427	794	268	263	368
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.59	0.69	0.32	0.75	0.75	0.30	0.07	0.10	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	990	118	174	779	15	562	27	220	19	22	23
Future Volume (veh/h)	38	990	118	174	779	15	562	27	220	19	22	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1752	1870	1870	1752	1752	1752	1870	1752	1870
Adj Flow Rate, veh/h	40	1031	123	181	811	16	632	0	239	21	24	25
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	10	2	2	10	10	10	2	10	2
Cap, veh/h	51	2081	248	208	2822	56	748	0	516	70	69	61
Arrive On Green	0.03	0.45	0.45	0.25	1.00	1.00	0.22	0.00	0.22	0.04	0.04	0.04
Sat Flow, veh/h	1781	4607	548	1668	5151	101	3337	0	1479	1781	1752	1549
Grp Volume(v), veh/h	40	761	393	181	536	291	632	0	239	21	24	25
Grp Sat Flow(s),veh/h/ln	1781	1702	1751	1668	1702	1848	1668	0	1479	1781	1752	1549
Q Serve(g_s), s	2.2	15.8	15.9	10.4	0.0	0.0	18.1	0.0	12.6	1.1	1.3	1.6
Cycle Q Clear(g_c), s	2.2	15.8	15.9	10.4	0.0	0.0	18.1	0.0	12.6	1.1	1.3	1.6
Prop In Lane	1.00		0.31	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	51	1538	791	208	1865	1013	748	0	516	70	69	61
V/C Ratio(X)	0.79	0.50	0.50	0.87	0.29	0.29	0.85	0.00	0.46	0.30	0.35	0.41
Avail Cap(c_a), veh/h	107	1538	791	250	1865	1013	868	0	570	285	280	248
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.70	0.70	0.70	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	19.4	19.4	36.8	0.0	0.0	37.1	0.0	25.3	46.7	46.8	46.9
Incr Delay (d2), s/veh	19.3	0.9	1.8	17.6	0.3	0.5	6.9	0.0	0.6	2.3	3.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	9.8	10.3	7.6	0.1	0.3	12.6	0.0	7.9	1.0	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.6	20.3	21.2	54.4	0.3	0.5	44.0	0.0	25.9	49.0	49.7	51.2
LnGrp LOS	E	C	C	D	A	A	D	A	C	D	D	D
Approach Vol, veh/h		1194			1008			871			70	
Approach Delay, s/veh		22.2			10.1			39.0			50.0	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.5	49.2		8.0	6.8	58.8		26.4				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	15.0	27.0		16.0	6.0	36.0		26.0				
Max Q Clear Time (g_c+I1), s	12.4	17.9		3.6	4.2	2.0		20.1				
Green Ext Time (p_c), s	0.2	5.0		0.2	0.0	6.2		2.3				

Intersection Summary			
HCM 6th Ctrl Delay		23.6	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	88.4	95.5	49.4	54.8
Crosswalk Width (ft)	10.0	10.0	10.0	10.0
Total Number of Lanes Crossed	7	7	4	4
Number of Right-Turn Islands	0	0	0	0
Type of Control	Actuated	None	Actuated	Actuated
Corresponding Signal Phase	4	8	2	6
Effective Walk Time (s)	9.0	0.0	9.0	9.0
Right Corner Size A (ft)	11.0	11.0	10.0	15.0
Right Corner Size B (ft)	10.0	11.0	11.0	14.0
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	110.00	121.00	110.00	210.00
Ped. Left-Right Flow Rate (p/h)	2	0	2	0
Ped. Right-Left Flow Rate (p/h)	1	0	3	0
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	3
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	8	0	55	38
Veh. RTOR Flow in Walk (v/h)	4	0	249	8
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	12355.6	0.0	19768.9	31482.7
Right Corner Quality of Service	A	-	A	A
Ped. Circulation Area (sq.ft)	3316.1	0.0	1593.1	0.0
Crosswalk Circulation Code	A	-	A	-
Pedestrian Delay (s/p)	41.4	50.0	41.4	41.4
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	3.04	2.98	2.79	2.19
Pedestrian Crosswalk LOS	C	C	C	B

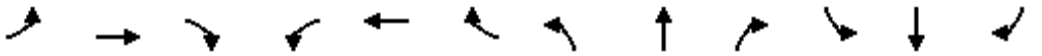
Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	8	9	1	5
Total Flow Rate (veh/h)	1194	1008	879	70
Effct. Green for Bike (s)	39.3	51.4	25.2	8.5
Cross Street Width (ft)	65.0	65.0	85.0	86.0
Through Lanes Number	3	3	1	1
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	6.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	786	1028	504	170
Bicycle Delay (s/bike)	18.5	11.9	28.0	42.0
Bicycle Compliance	Fair	Fair	Fair	Poor
Bicycle LOS Score	1.92	1.82	3.35	2.99
Bicycle LOS	B	B	C	C

Lane Group	EBL	EBT	WBT	NBL	NBT
Lane Group Flow (vph)	594	722	1239	126	117
v/c Ratio	1.04	0.27	0.68	0.48	0.28
Control Delay	70.1	1.4	20.9	41.6	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	70.1	1.4	20.9	41.6	1.7
Queue Length 50th (ft)	~213	13	255	77	0
Queue Length 95th (ft)	#306	37	#561	102	0
Internal Link Dist (ft)		1020	904		897
Turn Bay Length (ft)	435			185	
Base Capacity (vph)	572	2682	1814	557	631
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.04	0.27	0.68	0.23	0.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	552	671	0	0	864	276	120	0	111	0	0	0
Future Volume (veh/h)	552	671	0	0	864	276	120	0	111	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.98			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1752	1870	0	0	1870	1870	1752	1752	1752			
Adj Flow Rate, veh/h	594	722	0	0	939	300	126	0	117			
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.95	0.95	0.95			
Percent Heavy Veh, %	10	2	0	0	2	2	10	10	10			
Cap, veh/h	1318	2868	0	0	950	302	188	0	165			
Arrive On Green	0.81	1.00	0.00	0.00	0.36	0.36	0.11	0.00	0.11			
Sat Flow, veh/h	3237	3647	0	0	2731	839	1668	0	1460			
Grp Volume(v), veh/h	594	722	0	0	631	608	126	0	117			
Grp Sat Flow(s),veh/h/ln	1618	1777	0	0	1777	1700	1668	0	1460			
Q Serve(g_s), s	5.4	0.0	0.0	0.0	35.3	35.6	7.2	0.0	7.7			
Cycle Q Clear(g_c), s	5.4	0.0	0.0	0.0	35.3	35.6	7.2	0.0	7.7			
Prop In Lane	1.00		0.00	0.00		0.49	1.00		1.00			
Lane Grp Cap(c), veh/h	1318	2868	0	0	640	612	188	0	165			
V/C Ratio(X)	0.45	0.25	0.00	0.00	0.99	0.99	0.67	0.00	0.71			
Avail Cap(c_a), veh/h	1318	2868	0	0	640	612	567	0	496			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.83	0.83	0.00	0.00	0.75	0.75	1.00	0.00	1.00			
Uniform Delay (d), s/veh	6.0	0.0	0.0	0.0	31.8	31.9	42.6	0.0	42.8			
Incr Delay (d2), s/veh	0.2	0.2	0.0	0.0	27.8	30.0	4.1	0.0	5.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	2.4	0.1	0.0	0.0	25.5	25.1	5.7	0.0	5.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.2	0.2	0.0	0.0	59.5	61.9	46.6	0.0	48.3			
LnGrp LOS	A	A	A	A	E	E	D	A	D			
Approach Vol, veh/h		1316			1239			243				
Approach Delay, s/veh		2.9			60.7			47.4				
Approach LOS		A			E			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.7			44.7	40.0		15.3				
Change Period (Y+Rc), s		4.0			4.0	4.0		4.0				
Max Green Setting (Gmax), s		58.0			18.0	36.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0			7.4	37.6		9.7				
Green Ext Time (p_c), s		6.0			2.2	0.0		1.2				
Intersection Summary												
HCM 6th Ctrl Delay			32.3									
HCM 6th LOS			C									

Approach	EB	WB	NB	SB
Crosswalk Length (ft)	83.1	73.5	41.5	30.4
Crosswalk Width (ft)	10.0	11.0	10.0	10.0
Total Number of Lanes Crossed	6	4	2	2
Number of Right-Turn Islands	0	0	0	0
Type of Control	None	Actuated	Actuated	None
Corresponding Signal Phase	0	8	2	6
Effective Walk Time (s)	0.0	9.0	9.0	0.0
Right Corner Size A (ft)	8.0	9.0	19.0	0.1
Right Corner Size B (ft)	9.0	10.0	19.0	0.1
Right Corner Curb Radius (ft)	0.0	0.0	0.0	0.0
Right Corner Total Area (sq.ft)	72.00	90.00	361.00	0.01
Ped. Left-Right Flow Rate (p/h)	0	0	2	0
Ped. Right-Left Flow Rate (p/h)	0	1	1	1
Ped. R. Sidewalk Flow Rate (p/h)	0	0	0	0
Veh. Perm. L. Flow in Walk (v/h)	0	0	0	0
Veh. Perm. R. Flow in Walk (v/h)	0	185	0	0
Veh. RTOR Flow in Walk (v/h)	0	16	83	0
85th percentile speed (mph)	35	35	30	30
Right Corner Area per Ped (sq.ft)	21565.5	40474.1	81212.1	-53.5
Right Corner Quality of Service	A	A	A	F
Ped. Circulation Area (sq.ft)	0.0	7459.0	2974.4	0.3
Crosswalk Circulation Code	-	A	A	F
Pedestrian Delay (s/p)	50.0	41.4	41.4	50.0
Pedestrian Compliance Code	Poor	Poor	Poor	Poor
Pedestrian Crosswalk Score	2.92	2.75	1.96	2.16
Pedestrian Crosswalk LOS	C	C	B	B

Approach	EB	WB	NB	SB
Bicycle Flow Rate (bike/h)	5	11	1	1
Total Flow Rate (veh/h)	1316	1239	243	0
Effct. Green for Bike (s)	75.8	53.8	16.2	0.0
Cross Street Width (ft)	55.0	50.0	88.0	96.0
Through Lanes Number	2	2	1	0
Through Lane Width (ft)	12.0	12.0	12.0	12.0
Bicycle Lane Width (ft)	6.0	6.0	0.0	0.0
Striped Parking Lane Width (ft)	0.0	0.0	0.0	0.0
Paved Shoulder Width (ft)	0.0	0.0	7.0	0.0
Curb Is Present?	Yes	Yes	Yes	No
On Street Parking?	No	No	No	No
Bicycle Lane Capacity (bike/h)	1516	1076	324	0
Bicycle Delay (s/bike)	2.9	10.7	35.1	0.0
Bicycle Compliance	Good	Fair	Poor	
Bicycle LOS Score	2.20	2.06	2.13	0.00
Bicycle LOS	B	B	B	

Intersection	
Intersection Delay, s/veh	15.7
Intersection LOS	C

Approach	EB	WB	NB	SB
Entry Lanes	2	2	2	2
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	483	243	1599	868
Demand Flow Rate, veh/h	493	248	1631	886
Vehicles Circulating, veh/h	791	1660	287	539
Vehicles Exiting, veh/h	634	258	997	1369
Ped Vol Crossing Leg, #/h	5	5	0	0
Ped Cap Adj	0.999	1.000	1.000	1.000
Approach Delay, s/veh	10.1	33.7	17.1	11.3
Approach LOS	B	D	C	B

Lane	Left	Right	Left	Right	Left	Right	Left	Right
Designated Moves	LT	R	LT	R	LT	TR	LT	TR
Assumed Moves	LT	R	LT	R	LT	TR	LT	TR
RT Channelized								
Lane Util	0.497	0.503	0.802	0.198	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.645	4.328	4.645	4.328
Entry Flow, veh/h	245	248	199	49	767	864	416	470
Cap Entry Lane, veh/h	652	725	293	346	1037	1113	822	898
Entry HV Adj Factor	0.979	0.980	0.980	0.980	0.980	0.981	0.981	0.979
Flow Entry, veh/h	240	243	195	48	751	847	408	460
Cap Entry, veh/h	638	709	287	339	1016	1091	806	879
V/C Ratio	0.376	0.343	0.679	0.142	0.740	0.777	0.506	0.523
Control Delay, s/veh	10.9	9.4	38.8	13.1	16.6	17.6	11.5	11.1
LOS	B	A	E	B	C	C	B	B
95th %tile Queue, veh	2	2	5	0	7	8	3	3

Intersection	
Intersection Delay, s/veh	8.0
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	2	2	0	3
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	978	1408	0	0
Demand Flow Rate, veh/h	997	1437	0	0
Vehicles Circulating, veh/h	222	0	1018	1437
Vehicles Exiting, veh/h	1630	1018	201	0
Ped Vol Crossing Leg, #/h	0	0	8	9
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.9	8.1	0.0	0.0
Approach LOS	A	A	-	-

Lane	Left	Right	Left	Right
Designated Moves	LT	TR	LT	TR
Assumed Moves	LT	TR	LT	TR
RT Channelized				
Lane Util	0.470	0.530	0.470	0.530
Follow-Up Headway, s	2.667	2.535	2.667	2.535
Critical Headway, s	4.645	4.328	4.645	4.328
Entry Flow, veh/h	469	528	675	762
Cap Entry Lane, veh/h	1101	1176	1350	1420
Entry HV Adj Factor	0.980	0.981	0.981	0.980
Flow Entry, veh/h	459	518	662	746
Cap Entry, veh/h	1078	1154	1324	1391
V/C Ratio	0.426	0.449	0.500	0.537
Control Delay, s/veh	7.9	7.9	7.9	8.2
LOS	A	A	A	A
95th %tile Queue, veh	2	2	3	3

Intersection	
Intersection Delay, s/veh	3.7
Intersection LOS	A

Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	33	177	135	17
Demand Flow Rate, veh/h	33	181	138	17
Vehicles Circulating, veh/h	157	15	35	178
Vehicles Exiting, veh/h	38	157	155	18
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.3	3.8	3.6	3.3
Approach LOS	A	A	A	A

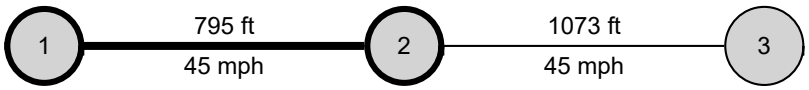
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	33	181	138	17
Cap Entry Lane, veh/h	1176	1359	1331	1151
Entry HV Adj Factor	0.986	0.980	0.978	0.994
Flow Entry, veh/h	33	177	135	17
Cap Entry, veh/h	1160	1332	1302	1144
V/C Ratio	0.028	0.133	0.104	0.015
Control Delay, s/veh	3.3	3.8	3.6	3.3
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Appendix C – Multimodal Roadway Segment Analysis Sheets (HCM 6th Edition)

Multimodal Roadway Segment Analysis Sheets - Existing Conditions AM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.39			14.23		
1	Running Speed, mph	37.67			38.10		
1	Through Delay, s/veh	4.76			2.86		
1	Travel Time, s	19.15			17.09		
1	Travel Speed, mph	28.31			31.71		
1	Stop Rate, stops/veh	0.34			0.11		
1	Spatial Stop Rate, stops/mi	2.29			0.73		
1	Through vol/cap Ratio	0.43			0.19		
1	Percent of Base FFS	62.92			70.52		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.49			2.46		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.57		D	3.02		C
1	Bicycle Segment LOS Score / LOS	2.08		B	1.81		A
1	Transit Segment LOS Score / LOS	3.60		D	2.59		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	39.61	43.52
Facility Travel Speed, mph	32.16	29.27
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	70.74	64.39
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.61

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.54	D	3.22	C
Bicycle Facility LOS Score / LOS	2.00	B	1.57	A
Transit Facility LOS Score / LOS	2.89	C	1.73	A

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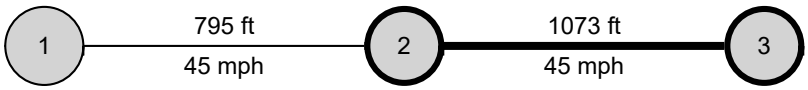
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.30			18.07		
2	Running Speed, mph	39.98			40.49		
2	Through Delay, s/veh	2.16			8.36		
2	Travel Time, s	20.46			26.43		
2	Travel Speed, mph	35.75			27.68		
2	Stop Rate, stops/veh	0.06			0.49		
2	Spatial Stop Rate, stops/mi	0.29			2.40		
2	Through vol/cap Ratio	0.40			0.28		
2	Percent of Base FFS	78.04			60.43		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.18			2.74		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.52		D	3.38		C
2	Bicycle Segment LOS Score / LOS	1.95		A	1.39		A
2	Transit Segment LOS Score / LOS	2.36		B	1.09		A

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	39.61	43.52
Facility Travel Speed, mph	32.16	29.27
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	70.74	64.39
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.61

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.54	D	3.22	C
Bicycle Facility LOS Score / LOS	2.00	B	1.57	A
Transit Facility LOS Score / LOS	2.89	C	1.73	A

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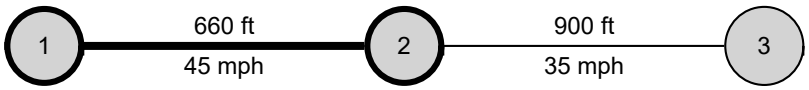
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.83			12.57		
1	Running Speed, mph	35.08			35.79		
1	Through Delay, s/veh	26.05			2.43		
1	Travel Time, s	38.88			15.00		
1	Travel Speed, mph	11.57			30.00		
1	Stop Rate, stops/veh	0.65			0.09		
1	Spatial Stop Rate, stops/mi	5.19			0.73		
1	Through vol/cap Ratio	0.79			0.21		
1	Percent of Base FFS	25.35			65.82		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	3.00			2.25		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.72		D	2.93		C
1	Bicycle Segment LOS Score / LOS	2.43		B	1.49		A
1	Transit Segment LOS Score / LOS	2.73		B	2.82		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	94.79	45.75
Facility Travel Speed, mph	11.22	23.25
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	26.31	50.90
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	3.01	2.40

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.51	D	2.82	C
Bicycle Facility LOS Score / LOS	2.37	C	1.57	A
Transit Facility LOS Score / LOS	2.60	C	2.80	C

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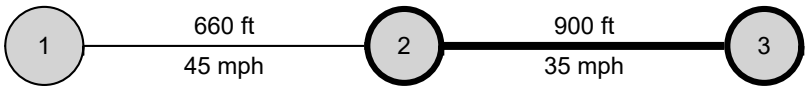
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.35			15.62		
2	Running Speed, mph	31.71			39.27		
2	Through Delay, s/veh	36.56			15.12		
2	Travel Time, s	55.91			30.75		
2	Travel Speed, mph	10.97			19.96		
2	Stop Rate, stops/veh	0.89			0.41		
2	Spatial Stop Rate, stops/mi	5.22			2.43		
2	Through vol/cap Ratio	0.92			0.30		
2	Percent of Base FFS	26.98			43.62		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	3.01			2.52		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.36		C	2.74		B
2	Bicycle Segment LOS Score / LOS	2.32		B	1.63		A
2	Transit Segment LOS Score / LOS	2.50		B	2.79		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	94.79	45.75
Facility Travel Speed, mph	11.22	23.25
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	26.31	50.90
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	3.01	2.40

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.51	D	2.82	C
Bicycle Facility LOS Score / LOS	2.37	C	1.57	A
Transit Facility LOS Score / LOS	2.60	C	2.80	C

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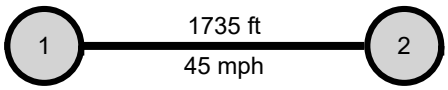
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	115	107	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.82			44.83		
1	Running Time, s	27.65			27.47		
1	Running Speed, mph	42.78			43.06		
1	Through Delay, s/veh	15.88			29.30		
1	Travel Time, s	43.53			56.77		
1	Travel Speed, mph	27.17			20.84		
1	Stop Rate, stops/veh	0.68			0.79		
1	Spatial Stop Rate, stops/mi	2.06			2.40		
1	Through vol/cap Ratio	0.52			0.43		
1	Percent of Base FFS	60.63			46.48		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.46			2.51		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.29		C	3.12		F
1	Bicycle Segment LOS Score / LOS	2.60		B	1.41		A
1	Transit Segment LOS Score / LOS	3.53		D	2.04		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	43.53	56.77
Facility Travel Speed, mph	27.17	20.84
Facility Base Free Flow Speed, mph	44.82	44.83
Facility Percent of Base FFS	60.63	46.48
Facility Level of Service	C	D
Facility Auto Traveler Perception Score	2.46	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.29	C	3.12	F
Bicycle Facility LOS Score / LOS	2.60	C	1.41	A
Transit Facility LOS Score / LOS	3.53	D	2.04	B

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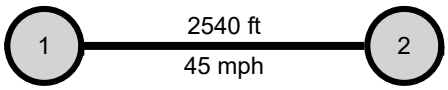
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	39.98			39.77		
1	Running Speed, mph	43.31			43.54		
1	Through Delay, s/veh	4.15			12.02		
1	Travel Time, s	44.13			51.80		
1	Travel Speed, mph	39.24			33.43		
1	Stop Rate, stops/veh	0.32			0.55		
1	Spatial Stop Rate, stops/mi	0.66			1.14		
1	Through vol/cap Ratio	0.03			0.31		
1	Percent of Base FFS	87.60			73.93		
1	Level of Service	A			B		
1	Auto Traveler Perception Score	2.24			2.31		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.03		D	3.30		C
1	Bicycle Segment LOS Score / LOS	2.39		B	1.84		A
1	Transit Segment LOS Score / LOS	3.12		C	3.21		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	44.13	51.80
Facility Travel Speed, mph	39.24	33.43
Facility Base Free Flow Speed, mph	44.80	45.22
Facility Percent of Base FFS	87.60	73.93
Facility Level of Service	A	B
Facility Auto Traveler Perception Score	2.24	2.31

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.03	D	3.30	C
Bicycle Facility LOS Score / LOS	2.39	C	1.84	A
Transit Facility LOS Score / LOS	3.12	C	3.21	C

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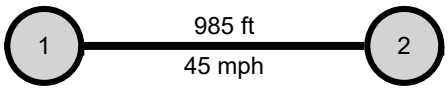
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	35	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph		45.33			40.66	
1	Running Time, s		16.94			20.04	
1	Running Speed, mph		39.63			33.52	
1	Through Delay, s/veh		13.00			13.67	
1	Travel Time, s		29.94			33.71	
1	Travel Speed, mph		22.43			20.13	
1	Stop Rate, stops/veh		0.40			0.57	
1	Spatial Stop Rate, stops/mi		2.16			3.04	
1	Through vol/cap Ratio		0.54			0.35	
1	Percent of Base FFS		49.48			49.51	
1	Level of Service		D			D	
1	Auto Traveler Perception Score		2.70			2.62	
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.61		D	3.30		C
1	Bicycle Segment LOS Score / LOS	2.80		C	2.50		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	29.94	33.71
Facility Travel Speed, mph	22.43	19.92
Facility Base Free Flow Speed, mph	45.33	40.66
Facility Percent of Base FFS	49.48	49.00
Facility Level of Service	D	D
Facility Auto Traveler Perception Score	2.70	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.61	D	3.30	C
Bicycle Facility LOS Score / LOS	2.80	C	2.50	C
Transit Facility LOS Score / LOS				

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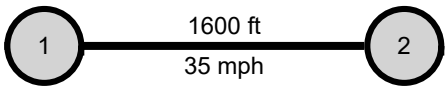
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	35	1	2	1600	1600	72	60	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	40.64			41.19		
1	Running Time, s	31.40			29.78		
1	Running Speed, mph	34.74			36.63		
1	Through Delay, s/veh	17.07			9.77		
1	Travel Time, s	48.47			39.55		
1	Travel Speed, mph	22.51			27.58		
1	Stop Rate, stops/veh	0.71			0.37		
1	Spatial Stop Rate, stops/mi	2.36			1.23		
1	Through vol/cap Ratio	0.73			0.49		
1	Percent of Base FFS	55.38			66.97		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.73			2.54		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.18		D	3.51		D
1	Bicycle Segment LOS Score / LOS	2.36		B	1.80		A
1	Transit Segment LOS Score / LOS	3.86		D	3.59		D

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	48.47	39.55
Facility Travel Speed, mph	22.51	27.58
Facility Base Free Flow Speed, mph	40.64	41.19
Facility Percent of Base FFS	55.38	66.97
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.73	2.54

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.18	D	3.51	D
Bicycle Facility LOS Score / LOS	2.36	C	1.80	A
Transit Facility LOS Score / LOS	3.86	D	3.59	D

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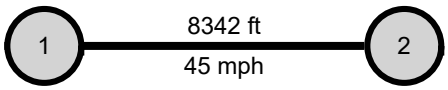
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	126.32			126.92		
1	Running Speed, mph	45.03			44.81		
1	Through Delay, s/veh	1.00			13.18		
1	Travel Time, s	127.32			140.09		
1	Travel Speed, mph	44.67			40.60		
1	Stop Rate, stops/veh	0.36			0.62		
1	Spatial Stop Rate, stops/mi	0.23			0.39		
1	Through vol/cap Ratio	0.27			0.52		
1	Percent of Base FFS	97.71			88.79		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.49		A	1.60		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	127.32	140.09
Facility Travel Speed, mph	44.67	40.60
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	97.71	88.79
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.49	A	1.60	A
Transit Facility LOS Score / LOS				

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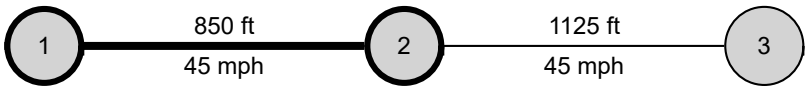
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	110	90	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.59			44.80		
1	Running Time, s	15.19			15.18		
1	Running Speed, mph	38.15			38.17		
1	Through Delay, s/veh	8.82			18.28		
1	Travel Time, s	24.01			33.46		
1	Travel Speed, mph	24.13			17.32		
1	Stop Rate, stops/veh	0.34			0.72		
1	Spatial Stop Rate, stops/mi	2.12			4.47		
1	Through vol/cap Ratio	0.55			0.53		
1	Percent of Base FFS	52.94			38.66		
1	Level of Service	C			E		
1	Auto Traveler Perception Score	2.69			2.87		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.99		C	3.60		D
1	Bicycle Segment LOS Score / LOS	2.35		B	1.96		A
1	Transit Segment LOS Score / LOS	3.08		C	3.02		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	66.56	54.39
Facility Travel Speed, mph	20.23	24.76
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	44.28	54.62
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.60	2.46

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.71	C	3.10	C
Bicycle Facility LOS Score / LOS	2.82	C	2.49	C
Transit Facility LOS Score / LOS	3.13	C	4.06	D

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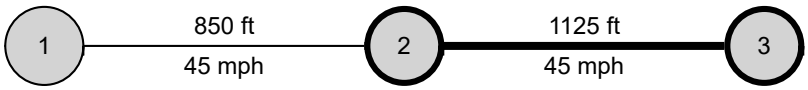
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	95	115	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.76			45.74		
2	Running Time, s	18.89			18.70		
2	Running Speed, mph	40.60			41.01		
2	Through Delay, s/veh	23.65			2.22		
2	Travel Time, s	42.55			20.93		
2	Travel Speed, mph	18.03			36.65		
2	Stop Rate, stops/veh	0.55			0.12		
2	Spatial Stop Rate, stops/mi	2.58			0.55		
2	Through vol/cap Ratio	0.29			0.19		
2	Percent of Base FFS	39.40			80.13		
2	Level of Service	E			A		
2	Auto Traveler Perception Score	2.54			2.22		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.49		B	2.73		B
2	Bicycle Segment LOS Score / LOS	3.16		C	2.88		C
2	Transit Segment LOS Score / LOS	3.17		C	4.85		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	66.56	54.39
Facility Travel Speed, mph	20.23	24.76
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	44.28	54.62
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.60	2.46

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.71	C	3.10	C
Bicycle Facility LOS Score / LOS	2.82	C	2.49	C
Transit Facility LOS Score / LOS	3.13	C	4.06	D

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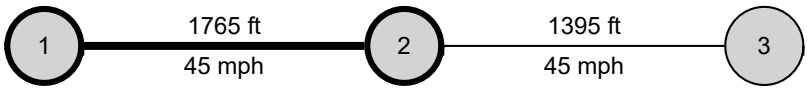
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	85	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.05			45.07		
1	Running Time, s	28.07			28.08		
1	Running Speed, mph	42.88			42.85		
1	Through Delay, s/veh	8.05			11.84		
1	Travel Time, s	36.11			39.92		
1	Travel Speed, mph	33.32			30.14		
1	Stop Rate, stops/veh	0.56			0.38		
1	Spatial Stop Rate, stops/mi	1.69			1.15		
1	Through vol/cap Ratio	0.44			0.16		
1	Percent of Base FFS	73.97			66.88		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.62			2.53		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.16		B	3.25		C
1	Bicycle Segment LOS Score / LOS	2.03		B	2.47		B
1	Transit Segment LOS Score / LOS	3.20		C	3.20		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	71.84	65.88
Facility Travel Speed, mph	29.99	32.70
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	66.34	72.33
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.58	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.45	C	3.32	F
Bicycle Facility LOS Score / LOS	1.98	A	2.38	C
Transit Facility LOS Score / LOS	3.21	C	3.51	D

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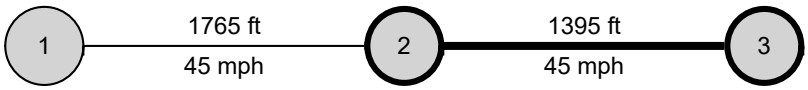
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	75	75	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.42			45.40		
2	Running Time, s	22.55			22.65		
2	Running Speed, mph	42.17			41.99		
2	Through Delay, s/veh	13.17			3.31		
2	Travel Time, s	35.72			25.96		
2	Travel Speed, mph	26.62			36.64		
2	Stop Rate, stops/veh	0.66			0.36		
2	Spatial Stop Rate, stops/mi	2.48			1.36		
2	Through vol/cap Ratio	0.26			0.29		
2	Percent of Base FFS	58.62			80.71		
2	Level of Service	C			A		
2	Auto Traveler Perception Score	2.52			2.34		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.80		C	3.41		F
2	Bicycle Segment LOS Score / LOS	1.91		A	2.27		B
2	Transit Segment LOS Score / LOS	3.21		C	3.91		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	71.84	65.88
Facility Travel Speed, mph	29.99	32.70
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	66.34	72.33
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.58	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.45	C	3.32	F
Bicycle Facility LOS Score / LOS	1.98	A	2.38	C
Transit Facility LOS Score / LOS	3.21	C	3.51	D

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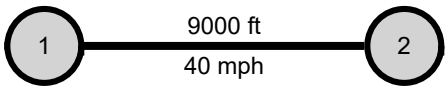
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	60	70	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	42.40			43.15		
1	Running Time, s	157.12			145.58		
1	Running Speed, mph	39.06			42.15		
1	Through Delay, s/veh	23.61			34.33		
1	Travel Time, s	180.72			179.91		
1	Travel Speed, mph	33.95			34.11		
1	Stop Rate, stops/veh	0.51			0.70		
1	Spatial Stop Rate, stops/mi	0.30			0.41		
1	Through vol/cap Ratio	0.02			0.24		
1	Percent of Base FFS	80.09			79.04		
1	Level of Service	A			B		
1	Auto Traveler Perception Score	2.18			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.90		C	2.67		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	180.72	179.91
Facility Travel Speed, mph	33.95	34.11
Facility Base Free Flow Speed, mph	42.40	43.15
Facility Percent of Base FFS	80.09	79.04
Facility Level of Service	A	B
Facility Auto Traveler Perception Score	2.18	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.90	C	2.67	C
Transit Facility LOS Score / LOS				

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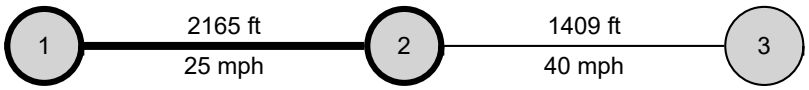
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	110	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	36.52			40.73		
1	Running Time, s	42.89			39.26		
1	Running Speed, mph	34.41			37.59		
1	Through Delay, s/veh	17.69			27.58		
1	Travel Time, s	60.59			66.85		
1	Travel Speed, mph	24.36			22.08		
1	Stop Rate, stops/veh	0.75			0.70		
1	Spatial Stop Rate, stops/mi	1.83			1.71		
1	Through vol/cap Ratio	0.75			0.17		
1	Percent of Base FFS	66.71			54.22		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.42			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.43		F	3.75		F
1	Bicycle Segment LOS Score / LOS	3.35		C	2.24		B
1	Transit Segment LOS Score / LOS	3.05		C	3.07		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	94.28	113.28
Facility Travel Speed, mph	25.85	21.51
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	66.40	55.39
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.40	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.17	F	3.58	F
Bicycle Facility LOS Score / LOS	3.04	C	2.16	B
Transit Facility LOS Score / LOS	3.21	C	3.29	C

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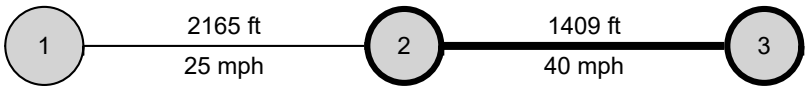
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	76	70	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	43.30			36.25		
2	Running Time, s	25.50			29.27		
2	Running Speed, mph	37.68			32.82		
2	Through Delay, s/veh	8.20			17.17		
2	Travel Time, s	33.69			46.44		
2	Travel Speed, mph	28.51			20.69		
2	Stop Rate, stops/veh	0.41			0.75		
2	Spatial Stop Rate, stops/mi	1.54			2.83		
2	Through vol/cap Ratio	0.50			0.59		
2	Percent of Base FFS	65.85			57.07		
2	Level of Service	C			C		
2	Auto Traveler Perception Score	2.37			2.58		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.78		D	3.31		C
2	Bicycle Segment LOS Score / LOS	2.57		B	2.04		B
2	Transit Segment LOS Score / LOS	3.45		C	3.63		D

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	94.28	113.28
Facility Travel Speed, mph	25.85	21.51
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	66.40	55.39
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.40	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.17	F	3.58	F
Bicycle Facility LOS Score / LOS	3.04	C	2.16	B
Transit Facility LOS Score / LOS	3.21	C	3.29	C

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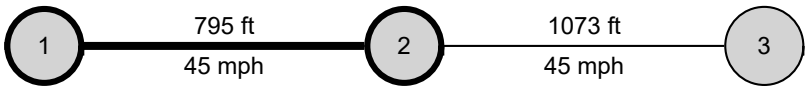
Multimodal Roadway Segment Analysis Sheets - Existing Conditions PM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.32			14.55		
1	Running Speed, mph	37.84			37.27		
1	Through Delay, s/veh	2.92			2.72		
1	Travel Time, s	17.25			17.26		
1	Travel Speed, mph	31.43			31.40		
1	Stop Rate, stops/veh	0.26			0.09		
1	Spatial Stop Rate, stops/mi	1.71			0.58		
1	Through vol/cap Ratio	0.33			0.44		
1	Percent of Base FFS	69.85			69.82		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.40			2.44		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.38		C	3.90		D
1	Bicycle Segment LOS Score / LOS	2.02		B	2.15		B
1	Transit Segment LOS Score / LOS	3.57		D	2.74		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	37.48	44.98
Facility Travel Speed, mph	33.98	28.32
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	74.75	62.31
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.27	2.59

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.33	C	4.05	D
Bicycle Facility LOS Score / LOS	1.92	A	1.87	A
Transit Facility LOS Score / LOS	2.84	C	1.93	A

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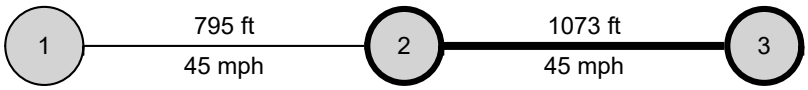
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.14			18.45		
2	Running Speed, mph	40.32			39.65		
2	Through Delay, s/veh	2.09			9.26		
2	Travel Time, s	20.23			27.71		
2	Travel Speed, mph	36.16			26.40		
2	Stop Rate, stops/veh	0.07			0.46		
2	Spatial Stop Rate, stops/mi	0.32			2.28		
2	Through vol/cap Ratio	0.31			0.69		
2	Percent of Base FFS	78.93			57.63		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.19			2.72		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.30		C	4.16		D
2	Bicycle Segment LOS Score / LOS	1.84		A	1.65		A
2	Transit Segment LOS Score / LOS	2.30		B	1.32		A

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	37.48	44.98
Facility Travel Speed, mph	33.98	28.32
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	74.75	62.31
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.27	2.59

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.33	C	4.05	D
Bicycle Facility LOS Score / LOS	1.92	A	1.87	A
Transit Facility LOS Score / LOS	2.84	C	1.93	A

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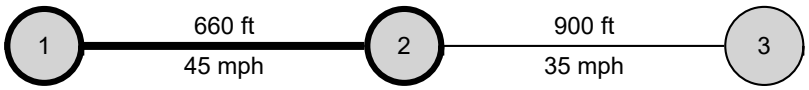
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.68			12.65		
1	Running Speed, mph	35.50			35.56		
1	Through Delay, s/veh	22.17			2.70		
1	Travel Time, s	34.85			15.36		
1	Travel Speed, mph	12.91			29.31		
1	Stop Rate, stops/veh	0.74			0.10		
1	Spatial Stop Rate, stops/mi	5.92			0.78		
1	Through vol/cap Ratio	0.76			0.30		
1	Percent of Base FFS	28.28			64.31		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	3.14			2.26		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.36		C	3.27		C
1	Bicycle Segment LOS Score / LOS	2.29		B	1.66		A
1	Transit Segment LOS Score / LOS	2.48		B	2.87		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	91.63	46.19
Facility Travel Speed, mph	11.61	23.03
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	27.22	50.42
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	3.06	2.53

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.13	C	3.10	C
Bicycle Facility LOS Score / LOS	2.20	B	1.76	A
Transit Facility LOS Score / LOS	2.43	C	2.86	C

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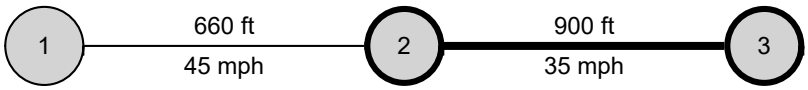
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	18.94			15.76		
2	Running Speed, mph	32.41			38.94		
2	Through Delay, s/veh	37.84			15.07		
2	Travel Time, s	56.78			30.83		
2	Travel Speed, mph	10.81			19.90		
2	Stop Rate, stops/veh	0.89			0.67		
2	Spatial Stop Rate, stops/mi	5.23			3.94		
2	Through vol/cap Ratio	0.87			0.57		
2	Percent of Base FFS	26.57			43.50		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	3.01			2.77		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.96		C	2.98		C
2	Bicycle Segment LOS Score / LOS	2.13		B	1.83		A
2	Transit Segment LOS Score / LOS	2.40		B	2.85		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	91.63	46.19
Facility Travel Speed, mph	11.61	23.03
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	27.22	50.42
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	3.06	2.53

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.13	C	3.10	C
Bicycle Facility LOS Score / LOS	2.20	B	1.76	A
Transit Facility LOS Score / LOS	2.43	C	2.86	C

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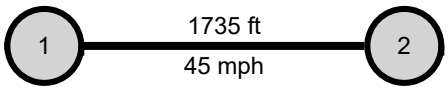
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 4:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	107	115	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.83			44.82		
1	Running Time, s	27.66			27.81		
1	Running Speed, mph	42.77			42.53		
1	Through Delay, s/veh	32.96			28.91		
1	Travel Time, s	60.62			56.73		
1	Travel Speed, mph	19.51			20.85		
1	Stop Rate, stops/veh	0.83			0.81		
1	Spatial Stop Rate, stops/mi	2.53			2.47		
1	Through vol/cap Ratio	0.68			0.68		
1	Percent of Base FFS	43.53			46.53		
1	Level of Service	D			D		
1	Auto Traveler Perception Score	2.53			2.52		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.34		C	3.51		D
1	Bicycle Segment LOS Score / LOS	2.61		B	1.77		A
1	Transit Segment LOS Score / LOS	3.74		D	2.12		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	60.62	56.73
Facility Travel Speed, mph	19.51	20.85
Facility Base Free Flow Speed, mph	44.83	44.82
Facility Percent of Base FFS	43.53	46.53
Facility Level of Service	D	D
Facility Auto Traveler Perception Score	2.53	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.34	C	3.51	D
Bicycle Facility LOS Score / LOS	2.61	C	1.77	A
Transit Facility LOS Score / LOS	3.74	D	2.12	B

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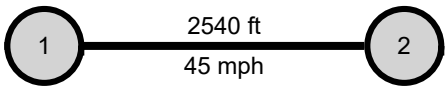
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.17			40.17		
1	Running Speed, mph	43.11			43.11		
1	Through Delay, s/veh	7.94			20.67		
1	Travel Time, s	48.12			60.83		
1	Travel Speed, mph	35.99			28.47		
1	Stop Rate, stops/veh	0.48			0.63		
1	Spatial Stop Rate, stops/mi	1.00			1.31		
1	Through vol/cap Ratio	0.50			0.48		
1	Percent of Base FFS	80.33			62.95		
1	Level of Service	A			C		
1	Auto Traveler Perception Score	2.29			2.34		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.17		D	3.36		C
1	Bicycle Segment LOS Score / LOS	2.56		B	1.98		A
1	Transit Segment LOS Score / LOS	3.21		C	3.37		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	48.12	60.83
Facility Travel Speed, mph	35.99	28.47
Facility Base Free Flow Speed, mph	44.80	45.22
Facility Percent of Base FFS	80.33	62.95
Facility Level of Service	A	C
Facility Auto Traveler Perception Score	2.29	2.34

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.17	D	3.36	C
Bicycle Facility LOS Score / LOS	2.56	C	1.98	A
Transit Facility LOS Score / LOS	3.21	C	3.37	C

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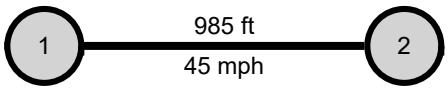
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h			never	never		
1	Base Free-Flow Speed, mph	45.33			45.36		
1	Running Time, s	16.93			17.04		
1	Running Speed, mph	39.68			39.42		
1	Through Delay, s/veh	20.82			12.07		
1	Travel Time, s	37.75			29.11		
1	Travel Speed, mph	17.79			23.07		
1	Stop Rate, stops/veh	0.67			0.43		
1	Spatial Stop Rate, stops/mi	3.61			2.29		
1	Through vol/cap Ratio	0.39			0.56		
1	Percent of Base FFS	39.25			50.86		
1	Level of Service	E			C		
1	Auto Traveler Perception Score	2.96			2.49		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.43		C	3.65		D
1	Bicycle Segment LOS Score / LOS	2.76		C	2.87		C
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	37.75	29.11
Facility Travel Speed, mph	17.79	23.07
Facility Base Free Flow Speed, mph	45.33	45.36
Facility Percent of Base FFS	39.25	50.86
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.96	2.49

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.43	C	3.65	D
Bicycle Facility LOS Score / LOS	2.76	C	2.87	C
Transit Facility LOS Score / LOS				

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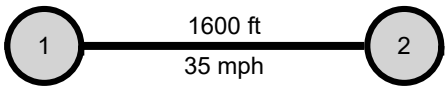
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	45	1	2	1600	1600	105	60	540	540	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	40.78			45.77		
1	Running Time, s	30.40			25.72		
1	Running Speed, mph	35.88			42.41		
1	Through Delay, s/veh	14.94			8.35		
1	Travel Time, s	45.35			34.07		
1	Travel Speed, mph	24.06			32.02		
1	Stop Rate, stops/veh	0.68			0.30		
1	Spatial Stop Rate, stops/mi	2.24			0.99		
1	Through vol/cap Ratio	0.53			0.31		
1	Percent of Base FFS	59.00			69.96		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.71			2.50		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.62		D	3.17		C
1	Bicycle Segment LOS Score / LOS	2.31		B	1.84		A
1	Transit Segment LOS Score / LOS	3.34		C	3.29		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	45.35	34.07
Facility Travel Speed, mph	24.06	32.02
Facility Base Free Flow Speed, mph	40.78	45.77
Facility Percent of Base FFS	59.00	69.96
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.71	2.50

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.62	D	3.17	C
Bicycle Facility LOS Score / LOS	2.31	C	1.84	A
Transit Facility LOS Score / LOS	3.34	C	3.29	C

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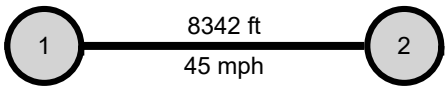
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	127.96			126.22		
1	Running Speed, mph	44.45			45.06		
1	Through Delay, s/veh	1.23			7.63		
1	Travel Time, s	129.20			133.85		
1	Travel Speed, mph	44.02			42.49		
1	Stop Rate, stops/veh	0.36			0.42		
1	Spatial Stop Rate, stops/mi	0.23			0.26		
1	Through vol/cap Ratio	0.49			0.25		
1	Percent of Base FFS	96.29			92.93		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.39		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.72		A	1.48		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	129.20	133.85
Facility Travel Speed, mph	44.02	42.49
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	96.29	92.93
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.72	A	1.48	A
Transit Facility LOS Score / LOS				

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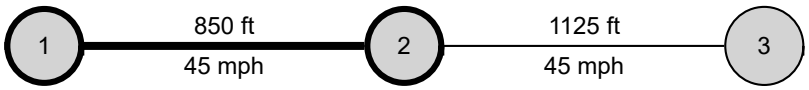
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	100	95	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.60			44.78		
1	Running Time, s	15.01			16.05		
1	Running Speed, mph	38.60			36.12		
1	Through Delay, s/veh	12.76			15.24		
1	Travel Time, s	27.78			31.29		
1	Travel Speed, mph	20.86			18.52		
1	Stop Rate, stops/veh	0.42			0.57		
1	Spatial Stop Rate, stops/mi	2.64			3.55		
1	Through vol/cap Ratio	0.41			0.65		
1	Percent of Base FFS	45.75			41.36		
1	Level of Service	D			D		
1	Auto Traveler Perception Score	2.78			2.71		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.92		C	4.35		E
1	Bicycle Segment LOS Score / LOS	2.22		B	2.28		B
1	Transit Segment LOS Score / LOS	2.17		B	5.20		F

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	89.55	57.64
Facility Travel Speed, mph	15.04	23.36
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	32.91	51.53
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.73	2.49

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.81	C	3.66	D
Bicycle Facility LOS Score / LOS	2.85	C	2.84	C
Transit Facility LOS Score / LOS	3.89	D	5.06	F

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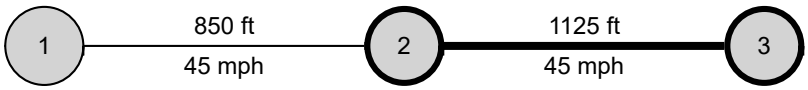
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	85	75	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.76			45.77		
2	Running Time, s	18.85			18.98		
2	Running Speed, mph	40.70			40.42		
2	Through Delay, s/veh	42.92			7.37		
2	Travel Time, s	61.77			26.35		
2	Travel Speed, mph	12.42			29.11		
2	Stop Rate, stops/veh	0.75			0.28		
2	Spatial Stop Rate, stops/mi	3.50			1.34		
2	Through vol/cap Ratio	0.63			0.48		
2	Percent of Base FFS	27.14			63.59		
2	Level of Service	F			C		
2	Auto Traveler Perception Score	2.70			2.34		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.73		B	3.14		C
2	Bicycle Segment LOS Score / LOS	3.33		C	3.26		C
2	Transit Segment LOS Score / LOS	5.20		F	4.96		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	89.55	57.64
Facility Travel Speed, mph	15.04	23.36
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	32.91	51.53
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.73	2.49

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.81	C	3.66	D
Bicycle Facility LOS Score / LOS	2.85	C	2.84	C
Transit Facility LOS Score / LOS	3.89	D	5.06	F

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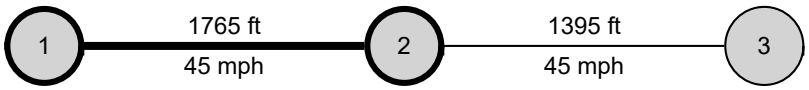
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	11. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	115	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.05			45.05		
1	Running Time, s	28.54			28.40		
1	Running Speed, mph	42.17			42.37		
1	Through Delay, s/veh	13.41			27.07		
1	Travel Time, s	41.94			55.47		
1	Travel Speed, mph	28.69			21.69		
1	Stop Rate, stops/veh	0.56			0.58		
1	Spatial Stop Rate, stops/mi	1.68			1.72		
1	Through vol/cap Ratio	0.76			0.44		
1	Percent of Base FFS	63.69			48.16		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.62			2.63		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.02		C	3.73		D
1	Bicycle Segment LOS Score / LOS	2.49		B	2.91		C
1	Transit Segment LOS Score / LOS	3.44		C	3.75		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	76.43	83.97
Facility Travel Speed, mph	28.19	25.66
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	62.32	56.73
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.52	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.19	C	4.14	F
Bicycle Facility LOS Score / LOS	2.36	C	2.65	C
Transit Facility LOS Score / LOS	4.14	D	3.96	D

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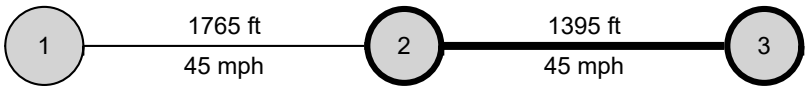
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	11. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph		45.48			45.46	
2	Running Time, s		23.00			22.77	
2	Running Speed, mph		41.36			41.77	
2	Through Delay, s/veh		11.49			5.73	
2	Travel Time, s		34.49			28.50	
2	Travel Speed, mph		27.58			33.38	
2	Stop Rate, stops/veh		0.46			0.40	
2	Spatial Stop Rate, stops/mi		1.73			1.52	
2	Through vol/cap Ratio		0.41			0.42	
2	Percent of Base FFS		60.65			73.42	
2	Level of Service		C			B	
2	Auto Traveler Perception Score		2.40			2.37	
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.41		C	4.67		F
2	Bicycle Segment LOS Score / LOS	2.20		B	2.32		B
2	Transit Segment LOS Score / LOS	5.02		F	4.24		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	76.43	83.97
Facility Travel Speed, mph	28.19	25.66
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	62.32	56.73
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.52	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.19	C	4.14	F
Bicycle Facility LOS Score / LOS	2.36	C	2.65	C
Transit Facility LOS Score / LOS	4.14	D	3.96	D

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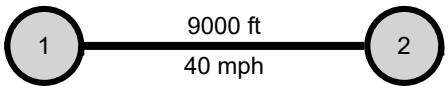
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	135	90	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	42.38			43.15		
1	Running Time, s	155.28			145.28		
1	Running Speed, mph	39.52			42.24		
1	Through Delay, s/veh	21.78			33.27		
1	Travel Time, s	177.06			178.55		
1	Travel Speed, mph	34.66			34.37		
1	Stop Rate, stops/veh	0.54			0.75		
1	Spatial Stop Rate, stops/mi	0.31			0.44		
1	Through vol/cap Ratio	0.02			0.38		
1	Percent of Base FFS	81.78			79.64		
1	Level of Service	A			B		
1	Auto Traveler Perception Score	2.19			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.94		C	2.64		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	177.06	178.55
Facility Travel Speed, mph	34.66	34.37
Facility Base Free Flow Speed, mph	42.38	43.15
Facility Percent of Base FFS	81.78	79.64
Facility Level of Service	A	B
Facility Auto Traveler Perception Score	2.19	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.94	C	2.64	C
Transit Facility LOS Score / LOS				

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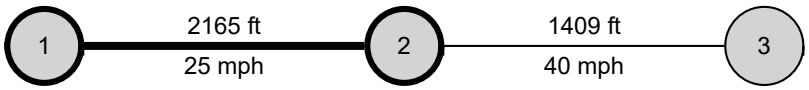
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	9. Madonna St from LOVR to Da	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	115	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	36.62			40.93		
1	Running Time, s	42.70			40.73		
1	Running Speed, mph	34.57			36.25		
1	Through Delay, s/veh	12.86			29.56		
1	Travel Time, s	55.56			70.29		
1	Travel Speed, mph	26.57			21.00		
1	Stop Rate, stops/veh	0.61			0.70		
1	Spatial Stop Rate, stops/mi	1.50			1.71		
1	Through vol/cap Ratio	0.42			0.30		
1	Percent of Base FFS	72.55			51.31		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.37			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.69		B	4.40		E
1	Bicycle Segment LOS Score / LOS	3.27		C	2.49		B
1	Transit Segment LOS Score / LOS	2.67		B	3.34		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	92.45	114.91
Facility Travel Speed, mph	26.36	21.21
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	67.35	54.16
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.38	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.05	C	3.93	D
Bicycle Facility LOS Score / LOS	2.97	C	2.45	C
Transit Facility LOS Score / LOS	3.13	C	3.35	C

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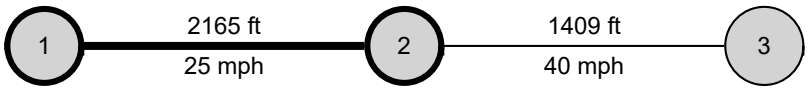
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	9. Madonna St from LOVR to Da	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	115	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	36.62			40.93		
1	Running Time, s	42.70			40.73		
1	Running Speed, mph	34.57			36.25		
1	Through Delay, s/veh	12.86			29.56		
1	Travel Time, s	55.56			70.29		
1	Travel Speed, mph	26.57			21.00		
1	Stop Rate, stops/veh	0.61			0.70		
1	Spatial Stop Rate, stops/mi	1.50			1.71		
1	Through vol/cap Ratio	0.42			0.30		
1	Percent of Base FFS	72.55			51.31		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.37			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.69		B	4.40		E
1	Bicycle Segment LOS Score / LOS	3.27		C	2.49		B
1	Transit Segment LOS Score / LOS	2.67		B	3.34		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	92.45	114.91
Facility Travel Speed, mph	26.36	21.21
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	67.35	54.16
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.38	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.05	C	3.93	D
Bicycle Facility LOS Score / LOS	2.97	C	2.45	C
Transit Facility LOS Score / LOS	3.13	C	3.35	C

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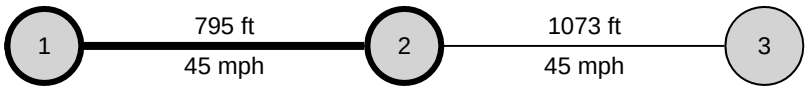
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.39			14.23		
1	Running Speed, mph	37.66			38.09		
1	Through Delay, s/veh	4.78			2.90		
1	Travel Time, s	19.18			17.13		
1	Travel Speed, mph	28.27			31.64		
1	Stop Rate, stops/veh	0.34			0.11		
1	Spatial Stop Rate, stops/mi	2.28			0.75		
1	Through vol/cap Ratio	0.43			0.20		
1	Percent of Base FFS	62.83			70.36		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.49			2.46		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.59		D	3.03		C
1	Bicycle Segment LOS Score / LOS	2.09		B	1.82		A
1	Transit Segment LOS Score / LOS	3.60		D	2.60		B

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	39.66	43.60
Facility Travel Speed, mph	32.11	29.21
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	70.64	64.28
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.55	D	3.24	C
Bicycle Facility LOS Score / LOS	2.01	B	1.58	A
Transit Facility LOS Score / LOS	2.89	C	1.74	A

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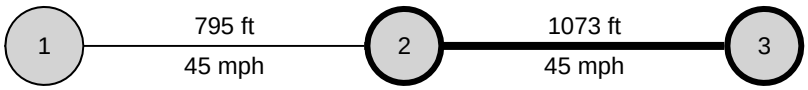
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.30			18.08		
2	Running Speed, mph	39.97			40.47		
2	Through Delay, s/veh	2.18			8.40		
2	Travel Time, s	20.49			26.47		
2	Travel Speed, mph	35.71			27.64		
2	Stop Rate, stops/veh	0.06			0.49		
2	Spatial Stop Rate, stops/mi	0.29			2.39		
2	Through vol/cap Ratio	0.40			0.29		
2	Percent of Base FFS	77.95			60.34		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.18			2.74		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.53		D	3.39		C
2	Bicycle Segment LOS Score / LOS	1.95		A	1.40		A
2	Transit Segment LOS Score / LOS	2.37		B	1.10		A

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	39.66	43.60
Facility Travel Speed, mph	32.11	29.21
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	70.64	64.28
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.55	D	3.24	C
Bicycle Facility LOS Score / LOS	2.01	B	1.58	A
Transit Facility LOS Score / LOS	2.89	C	1.74	A

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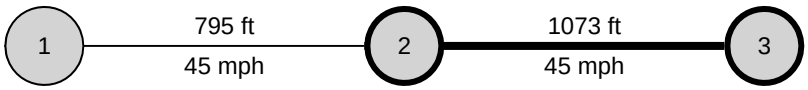
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.30			18.08		
2	Running Speed, mph	39.97			40.47		
2	Through Delay, s/veh	2.18			8.40		
2	Travel Time, s	20.49			26.47		
2	Travel Speed, mph	35.71			27.64		
2	Stop Rate, stops/veh	0.06			0.49		
2	Spatial Stop Rate, stops/mi	0.29			2.39		
2	Through vol/cap Ratio	0.40			0.29		
2	Percent of Base FFS	77.95			60.34		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.18			2.74		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.53		D	3.39		C
2	Bicycle Segment LOS Score / LOS	1.95		A	1.40		A
2	Transit Segment LOS Score / LOS	2.37		B	1.10		A

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	39.66	43.60
Facility Travel Speed, mph	32.11	29.21
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	70.64	64.28
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.55	D	3.24	C
Bicycle Facility LOS Score / LOS	2.01	B	1.58	A
Transit Facility LOS Score / LOS	2.89	C	1.74	A

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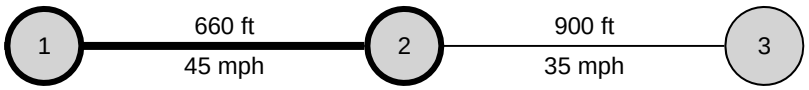
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.83			12.58		
1	Running Speed, mph	35.07			35.78		
1	Through Delay, s/veh	26.35			2.45		
1	Travel Time, s	39.18			15.02		
1	Travel Speed, mph	11.49			29.95		
1	Stop Rate, stops/veh	0.65			0.09		
1	Spatial Stop Rate, stops/mi	5.21			0.73		
1	Through vol/cap Ratio	0.80			0.21		
1	Percent of Base FFS	25.16			65.73		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	3.00			2.25		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.73		D	2.94		C
1	Bicycle Segment LOS Score / LOS	2.44		B	1.50		A
1	Transit Segment LOS Score / LOS	2.75		B	2.82		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	97.33	45.82
Facility Travel Speed, mph	10.93	23.21
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	25.63	50.82
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	3.02	2.40

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.52	D	2.83	C
Bicycle Facility LOS Score / LOS	2.37	C	1.58	A
Transit Facility LOS Score / LOS	2.61	C	2.80	C

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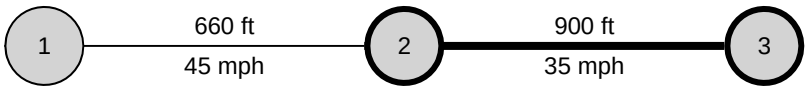
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.37			15.63		
2	Running Speed, mph	31.68			39.26		
2	Through Delay, s/veh	38.79			15.17		
2	Travel Time, s	58.15			30.80		
2	Travel Speed, mph	10.55			19.92		
2	Stop Rate, stops/veh	0.91			0.41		
2	Spatial Stop Rate, stops/mi	5.32			2.43		
2	Through vol/cap Ratio	0.93			0.31		
2	Percent of Base FFS	25.94			43.55		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	3.03			2.52		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.37		C	2.75		C
2	Bicycle Segment LOS Score / LOS	2.33		B	1.64		A
2	Transit Segment LOS Score / LOS	2.50		B	2.79		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	97.33	45.82
Facility Travel Speed, mph	10.93	23.21
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	25.63	50.82
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	3.02	2.40

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.52	D	2.83	C
Bicycle Facility LOS Score / LOS	2.37	C	1.58	A
Transit Facility LOS Score / LOS	2.61	C	2.80	C

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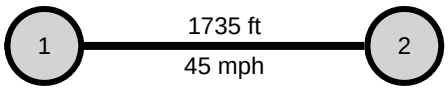
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	115	107	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.82			44.83		
1	Running Time, s	27.66			27.48		
1	Running Speed, mph	42.76			43.04		
1	Through Delay, s/veh	15.96			29.63		
1	Travel Time, s	43.62			57.11		
1	Travel Speed, mph	27.12			20.71		
1	Stop Rate, stops/veh	0.68			0.79		
1	Spatial Stop Rate, stops/mi	2.07			2.40		
1	Through vol/cap Ratio	0.53			0.44		
1	Percent of Base FFS	60.51			46.21		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.46			2.51		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.30		C	3.14		F
1	Bicycle Segment LOS Score / LOS	2.63		B	1.42		A
1	Transit Segment LOS Score / LOS	3.53		D	2.04		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	43.62	57.11
Facility Travel Speed, mph	27.12	20.71
Facility Base Free Flow Speed, mph	44.82	44.83
Facility Percent of Base FFS	60.51	46.21
Facility Level of Service	C	D
Facility Auto Traveler Perception Score	2.46	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.30	C	3.14	F
Bicycle Facility LOS Score / LOS	2.63	C	1.42	A
Transit Facility LOS Score / LOS	3.53	D	2.04	B

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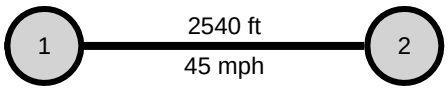
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.02			39.82		
1	Running Speed, mph	43.27			43.49		
1	Through Delay, s/veh	6.12			12.16		
1	Travel Time, s	46.14			51.99		
1	Travel Speed, mph	37.53			33.31		
1	Stop Rate, stops/veh	0.39			0.55		
1	Spatial Stop Rate, stops/mi	0.81			1.14		
1	Through vol/cap Ratio	0.41			0.34		
1	Percent of Base FFS	83.78			73.66		
1	Level of Service	A			B		
1	Auto Traveler Perception Score	2.26			2.31		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.06		D	3.35		C
1	Bicycle Segment LOS Score / LOS	2.46		B	1.84		A
1	Transit Segment LOS Score / LOS	3.16		C	3.22		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	46.14	51.99
Facility Travel Speed, mph	37.53	33.31
Facility Base Free Flow Speed, mph	44.80	45.22
Facility Percent of Base FFS	83.78	73.66
Facility Level of Service	A	B
Facility Auto Traveler Perception Score	2.26	2.31

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.06	D	3.35	C
Bicycle Facility LOS Score / LOS	2.46	C	1.84	A
Transit Facility LOS Score / LOS	3.16	C	3.22	C

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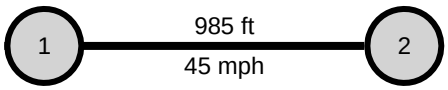
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	35	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.33			40.66		
1	Running Time, s	16.98			20.06		
1	Running Speed, mph	39.56			33.48		
1	Through Delay, s/veh	12.69			13.53		
1	Travel Time, s	29.66			33.59		
1	Travel Speed, mph	22.43			20.13		
1	Stop Rate, stops/veh	0.40			0.56		
1	Spatial Stop Rate, stops/mi	2.13			2.98		
1	Through vol/cap Ratio	0.52			0.37		
1	Percent of Base FFS	49.48			49.51		
1	Level of Service	D			D		
1	Auto Traveler Perception Score	2.69			2.61		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.68		D	3.33		C
1	Bicycle Segment LOS Score / LOS	2.82		C	2.52		B
1	Transit Segment LOS Score / LOS	4.80		E	4.82		E

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	29.66	33.59
Facility Travel Speed, mph	22.64	19.99
Facility Base Free Flow Speed, mph	45.33	40.66
Facility Percent of Base FFS	49.95	49.18
Facility Level of Service	D	D
Facility Auto Traveler Perception Score	2.69	2.61

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.68	D	3.33	C
Bicycle Facility LOS Score / LOS	2.82	C	2.52	C
Transit Facility LOS Score / LOS	4.80	E	4.82	E

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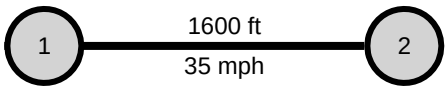
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	35	1	2	1600	1600	72	60	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	40.64			41.19		
1	Running Time, s	31.56			29.83		
1	Running Speed, mph	34.56			36.58		
1	Through Delay, s/veh	17.24			10.02		
1	Travel Time, s	48.81			39.84		
1	Travel Speed, mph	22.35			27.38		
1	Stop Rate, stops/veh	0.73			0.38		
1	Spatial Stop Rate, stops/mi	2.40			1.25		
1	Through vol/cap Ratio	0.68			0.51		
1	Percent of Base FFS	55.00			66.48		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.74			2.55		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.24		D	3.54		D
1	Bicycle Segment LOS Score / LOS	2.38		B	1.81		A
1	Transit Segment LOS Score / LOS	3.88		D	3.60		D

Facility Output Data	**Southbound**		**Northbound**	
Facility Travel Time, s	48.81		39.84	
Facility Travel Speed, mph	22.35		27.38	
Facility Base Free Flow Speed, mph	40.64		41.19	
Facility Percent of Base FFS	55.00		66.48	
Facility Level of Service	C		C	
Facility Auto Traveler Perception Score	2.74		2.55	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.24	D	3.54	D
Bicycle Facility LOS Score / LOS	2.38	C	1.81	A
Transit Facility LOS Score / LOS	3.88	D	3.60	D

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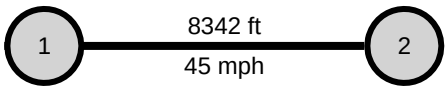
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	126.32			126.92		
1	Running Speed, mph	45.03			44.81		
1	Through Delay, s/veh	1.00			13.43		
1	Travel Time, s	127.32			140.35		
1	Travel Speed, mph	44.67			40.53		
1	Stop Rate, stops/veh	0.36			0.63		
1	Spatial Stop Rate, stops/mi	0.23			0.40		
1	Through vol/cap Ratio	0.27			0.52		
1	Percent of Base FFS	97.71			88.63		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.49		A	1.60		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	127.32	140.35
Facility Travel Speed, mph	44.67	40.53
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	97.71	88.63
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.49	A	1.60	A
Transit Facility LOS Score / LOS				

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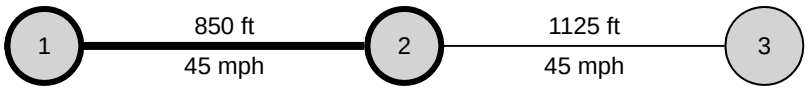
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	110	90	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.59			44.80		
1	Running Time, s	15.21			15.21		
1	Running Speed, mph	38.11			38.10		
1	Through Delay, s/veh	8.93			18.39		
1	Travel Time, s	24.13			33.60		
1	Travel Speed, mph	24.01			17.25		
1	Stop Rate, stops/veh	0.34			0.71		
1	Spatial Stop Rate, stops/mi	2.11			4.42		
1	Through vol/cap Ratio	0.57			0.52		
1	Percent of Base FFS	52.68			38.50		
1	Level of Service	C			E		
1	Auto Traveler Perception Score	2.69			2.86		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.01		C	3.65		D
1	Bicycle Segment LOS Score / LOS	2.37		B	1.98		A
1	Transit Segment LOS Score / LOS	3.10		C	3.04		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	66.99	54.55
Facility Travel Speed, mph	20.10	24.68
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	44.00	54.46
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.61	2.46

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.73	C	3.14	C
Bicycle Facility LOS Score / LOS	2.83	C	2.51	C
Transit Facility LOS Score / LOS	3.14	C	4.07	D

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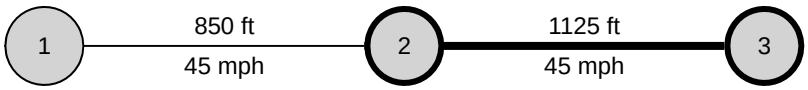
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	95	115	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.76			45.74		
2	Running Time, s	18.92			18.72		
2	Running Speed, mph	40.55			40.98		
2	Through Delay, s/veh	23.94			2.23		
2	Travel Time, s	42.85			20.95		
2	Travel Speed, mph	17.90			36.62		
2	Stop Rate, stops/veh	0.56			0.11		
2	Spatial Stop Rate, stops/mi	2.61			0.52		
2	Through vol/cap Ratio	0.31			0.21		
2	Percent of Base FFS	39.12			80.05		
2	Level of Service	E			A		
2	Auto Traveler Perception Score	2.55			2.22		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.52		B	2.76		C
2	Bicycle Segment LOS Score / LOS	3.18		C	2.90		C
2	Transit Segment LOS Score / LOS	3.18		C	4.85		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	66.99	54.55
Facility Travel Speed, mph	20.10	24.68
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	44.00	54.46
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.61	2.46

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.73	C	3.14	C
Bicycle Facility LOS Score / LOS	2.83	C	2.51	C
Transit Facility LOS Score / LOS	3.14	C	4.07	D

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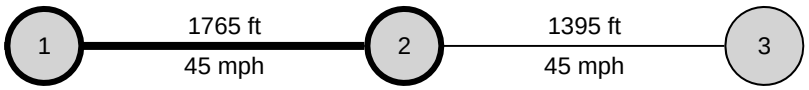
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	85	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.05			45.07		
1	Running Time, s	28.09			28.10		
1	Running Speed, mph	42.84			42.83		
1	Through Delay, s/veh	8.19			11.95		
1	Travel Time, s	36.27			40.05		
1	Travel Speed, mph	33.18			30.05		
1	Stop Rate, stops/veh	0.56			0.39		
1	Spatial Stop Rate, stops/mi	1.69			1.16		
1	Through vol/cap Ratio	0.46			0.17		
1	Percent of Base FFS	73.65			66.67		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.62			2.53		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.19		B	3.27		C
1	Bicycle Segment LOS Score / LOS	2.04		B	2.48		B
1	Transit Segment LOS Score / LOS	3.21		C	3.21		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	72.14	66.03
Facility Travel Speed, mph	29.87	32.63
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	66.06	72.17
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.58	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.47	C	3.34	F
Bicycle Facility LOS Score / LOS	1.99	A	2.39	C
Transit Facility LOS Score / LOS	3.22	C	3.52	D

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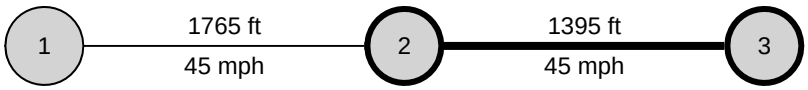
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	75	75	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.42			45.40		
2	Running Time, s	22.57			22.67		
2	Running Speed, mph	42.15			41.96		
2	Through Delay, s/veh	13.30			3.31		
2	Travel Time, s	35.87			25.98		
2	Travel Speed, mph	26.52			36.61		
2	Stop Rate, stops/veh	0.65			0.36		
2	Spatial Stop Rate, stops/mi	2.47			1.35		
2	Through vol/cap Ratio	0.28			0.29		
2	Percent of Base FFS	58.39			80.64		
2	Level of Service	C			A		
2	Auto Traveler Perception Score	2.52			2.34		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.82		C	3.43		F
2	Bicycle Segment LOS Score / LOS	1.92		A	2.28		B
2	Transit Segment LOS Score / LOS	3.22		C	3.91		D

Facility Output Data	**Northbound**		**Southbound**	
Facility Travel Time, s	72.14		66.03	
Facility Travel Speed, mph	29.87		32.63	
Facility Base Free Flow Speed, mph	45.21		45.21	
Facility Percent of Base FFS	66.06		72.17	
Facility Level of Service	C		B	
Facility Auto Traveler Perception Score	2.58		2.44	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.47	C	3.34	F
Bicycle Facility LOS Score / LOS	1.99	A	2.39	C
Transit Facility LOS Score / LOS	3.22	C	3.52	D

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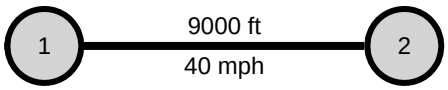
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	60	70	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	42.40			43.15		
1	Running Time, s	157.08			145.68		
1	Running Speed, mph	39.07			42.12		
1	Through Delay, s/veh	23.61			34.25		
1	Travel Time, s	180.69			179.93		
1	Travel Speed, mph	33.96			34.11		
1	Stop Rate, stops/veh	0.51			0.69		
1	Spatial Stop Rate, stops/mi	0.30			0.41		
1	Through vol/cap Ratio	0.02			0.24		
1	Percent of Base FFS	80.10			79.03		
1	Level of Service	A			B		
1	Auto Traveler Perception Score	2.18			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.90		C	2.68		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound		Eastbound	
Facility Travel Time, s	180.69		179.93	
Facility Travel Speed, mph	33.96		34.11	
Facility Base Free Flow Speed, mph	42.40		43.15	
Facility Percent of Base FFS	80.10		79.03	
Facility Level of Service	A		B	
Facility Auto Traveler Perception Score	2.18		2.41	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.90	C	2.68	C
Transit Facility LOS Score / LOS				

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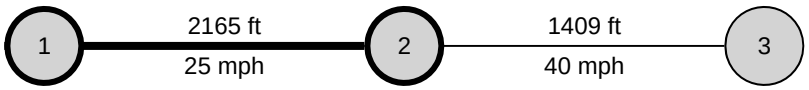
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	110	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	36.52			40.73		
1	Running Time, s	42.92			39.30		
1	Running Speed, mph	34.40			37.56		
1	Through Delay, s/veh	17.76			27.91		
1	Travel Time, s	60.68			67.21		
1	Travel Speed, mph	24.33			21.96		
1	Stop Rate, stops/veh	0.75			0.70		
1	Spatial Stop Rate, stops/mi	1.83			1.71		
1	Through vol/cap Ratio	0.76			0.17		
1	Percent of Base FFS	66.62			53.92		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.42			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.45		F	3.77		F
1	Bicycle Segment LOS Score / LOS	3.35		C	2.25		B
1	Transit Segment LOS Score / LOS	3.06		C	3.08		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	94.40	113.76
Facility Travel Speed, mph	25.81	21.42
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	66.32	55.16
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.40	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.19	F	3.60	F
Bicycle Facility LOS Score / LOS	3.05	C	2.17	B
Transit Facility LOS Score / LOS	3.21	C	3.30	C

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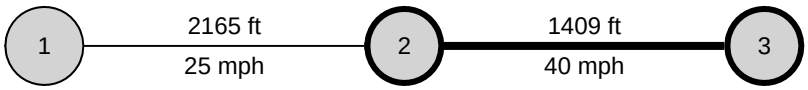
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	76	70	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	43.30			36.25		
2	Running Time, s	25.51			29.28		
2	Running Speed, mph	37.66			32.81		
2	Through Delay, s/veh	8.22			17.26		
2	Travel Time, s	33.73			46.54		
2	Travel Speed, mph	28.48			20.64		
2	Stop Rate, stops/veh	0.41			0.76		
2	Spatial Stop Rate, stops/mi	1.55			2.83		
2	Through vol/cap Ratio	0.50			0.60		
2	Percent of Base FFS	65.78			56.94		
2	Level of Service	C			C		
2	Auto Traveler Perception Score	2.37			2.58		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.79		D	3.32		C
2	Bicycle Segment LOS Score / LOS	2.58		B	2.05		B
2	Transit Segment LOS Score / LOS	3.45		C	3.64		D

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	94.40	113.76
Facility Travel Speed, mph	25.81	21.42
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	66.32	55.16
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.40	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.19	F	3.60	F
Bicycle Facility LOS Score / LOS	3.05	C	2.17	B
Transit Facility LOS Score / LOS	3.21	C	3.30	C

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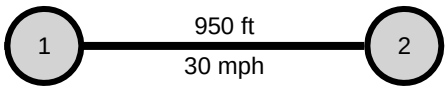
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	2
Analyst		Analysis Date	1/14/2019	Number of Segments	1
Jurisdiction		Time Period		Number of Iterations	15
File Name	13. Collector A from LOVR to Co	Analysis Year	2019	System Cycle Length, s	120
Intersections	LOVR/Collector A	Collector A/Collector B		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan TIS				



Basic Segment Information (Commercial Collector A)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	30	30	1	1	950	950	50	50	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	39.37			39.37		
1	Running Time, s	19.64			19.67		
1	Running Speed, mph	32.98			32.93		
1	Through Delay, s/veh	1.77			0.00		
1	Travel Time, s	21.41			19.67		
1	Travel Speed, mph	30.26			32.93		
1	Stop Rate, stops/veh	0.09			0.00		
1	Spatial Stop Rate, stops/mi	0.50			0.00		
1	Through vol/cap Ratio	0.08			0.00		
1	Percent of Base FFS	76.85			83.65		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.42			2.34		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.13		B	2.78		C
1	Bicycle Segment LOS Score / LOS	0.89		A	0.48		A
1	Transit Segment LOS Score / LOS	0.64		A	0.65		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	21.41	19.67
Facility Travel Speed, mph	30.26	32.93
Facility Base Free Flow Speed, mph	39.37	39.37
Facility Percent of Base FFS	76.85	83.65
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.42	2.34

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.13	B	2.78	C
Bicycle Facility LOS Score / LOS	0.89	A	0.48	A
Transit Facility LOS Score / LOS	0.64	A	0.65	A

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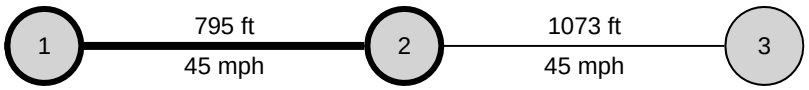
Multimodal Roadway Segment Analysis Sheets - Existing Plus Project Conditions PM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	PM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph		44.99			44.97	
1	Running Time, s		14.33			14.55	
1	Running Speed, mph		37.83			37.25	
1	Through Delay, s/veh		2.95			2.76	
1	Travel Time, s		17.28			17.31	
1	Travel Speed, mph		31.37			31.32	
1	Stop Rate, stops/veh		0.26			0.09	
1	Spatial Stop Rate, stops/mi		1.71			0.59	
1	Through vol/cap Ratio		0.33			0.45	
1	Percent of Base FFS		69.71			69.63	
1	Level of Service		B			B	
1	Auto Traveler Perception Score		2.40			2.44	
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.40		C	3.92		D
1	Bicycle Segment LOS Score / LOS	2.02		B	2.15		B
1	Transit Segment LOS Score / LOS	3.58		D	2.75		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	37.55	45.14
Facility Travel Speed, mph	33.92	28.22
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	74.61	62.09
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.27	2.59

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.35	C	4.07	D
Bicycle Facility LOS Score / LOS	1.92	A	1.87	A
Transit Facility LOS Score / LOS	2.84	C	1.93	A

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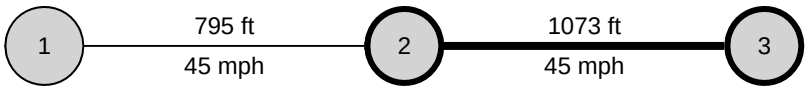
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	PM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.15			18.46		
2	Running Speed, mph	40.30			39.63		
2	Through Delay, s/veh	2.11			9.37		
2	Travel Time, s	20.27			27.83		
2	Travel Speed, mph	36.10			26.29		
2	Stop Rate, stops/veh	0.07			0.47		
2	Spatial Stop Rate, stops/mi	0.32			2.29		
2	Through vol/cap Ratio	0.32			0.70		
2	Percent of Base FFS	78.79			57.39		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.19			2.72		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.31		C	4.18		D
2	Bicycle Segment LOS Score / LOS	1.85		A	1.66		A
2	Transit Segment LOS Score / LOS	2.30		B	1.33		A

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	37.55	45.14
Facility Travel Speed, mph	33.92	28.22
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	74.61	62.09
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.27	2.59

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.35	C	4.07	D
Bicycle Facility LOS Score / LOS	1.92	A	1.87	A
Transit Facility LOS Score / LOS	2.84	C	1.93	A

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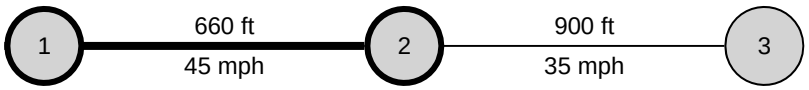
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	PM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.68			12.66		
1	Running Speed, mph	35.48			35.56		
1	Through Delay, s/veh	22.64			2.72		
1	Travel Time, s	35.32			15.38		
1	Travel Speed, mph	12.74			29.26		
1	Stop Rate, stops/veh	0.74			0.10		
1	Spatial Stop Rate, stops/mi	5.94			0.78		
1	Through vol/cap Ratio	0.78			0.31		
1	Percent of Base FFS	27.91			64.22		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	3.14			2.26		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.38		C	3.28		C
1	Bicycle Segment LOS Score / LOS	2.30		B	1.67		A
1	Transit Segment LOS Score / LOS	2.51		B	2.88		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	93.33	46.29
Facility Travel Speed, mph	11.40	22.98
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	26.72	50.30
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	3.07	2.53

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.15	C	3.11	C
Bicycle Facility LOS Score / LOS	2.21	B	1.76	A
Transit Facility LOS Score / LOS	2.45	C	2.86	C

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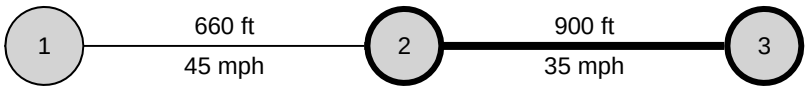
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	PM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	18.95			15.76		
2	Running Speed, mph	32.38			38.93		
2	Through Delay, s/veh	39.06			15.15		
2	Travel Time, s	58.01			30.92		
2	Travel Speed, mph	10.58			19.85		
2	Stop Rate, stops/veh	0.90			0.68		
2	Spatial Stop Rate, stops/mi	5.28			3.97		
2	Through vol/cap Ratio	0.88			0.58		
2	Percent of Base FFS	26.00			43.38		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	3.02			2.78		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.98		C	2.98		C
2	Bicycle Segment LOS Score / LOS	2.14		B	1.83		A
2	Transit Segment LOS Score / LOS	2.40		B	2.85		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	93.33	46.29
Facility Travel Speed, mph	11.40	22.98
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	26.72	50.30
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	3.07	2.53

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.15	C	3.11	C
Bicycle Facility LOS Score / LOS	2.21	B	1.76	A
Transit Facility LOS Score / LOS	2.45	C	2.86	C

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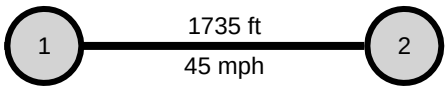
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 4:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	107	115	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.83			44.82		
1	Running Time, s	27.68			27.83		
1	Running Speed, mph	42.74			42.50		
1	Through Delay, s/veh	34.36			28.91		
1	Travel Time, s	62.04			56.74		
1	Travel Speed, mph	19.07			20.85		
1	Stop Rate, stops/veh	0.84			0.70		
1	Spatial Stop Rate, stops/mi	2.57			2.14		
1	Through vol/cap Ratio	0.72			0.56		
1	Percent of Base FFS	42.54			46.52		
1	Level of Service	D			D		
1	Auto Traveler Perception Score	2.54			2.47		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.36		C	3.53		D
1	Bicycle Segment LOS Score / LOS	2.61		B	1.78		A
1	Transit Segment LOS Score / LOS	3.76		D	2.13		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	62.04	56.74
Facility Travel Speed, mph	19.07	20.85
Facility Base Free Flow Speed, mph	44.83	44.82
Facility Percent of Base FFS	42.54	46.52
Facility Level of Service	D	D
Facility Auto Traveler Perception Score	2.54	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.36	C	3.53	D
Bicycle Facility LOS Score / LOS	2.61	C	1.78	A
Transit Facility LOS Score / LOS	3.76	D	2.13	B

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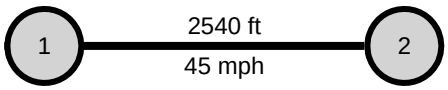
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.23			40.24		
1	Running Speed, mph	43.05			43.03		
1	Through Delay, s/veh	8.12			21.45		
1	Travel Time, s	48.35			61.69		
1	Travel Speed, mph	35.82			28.07		
1	Stop Rate, stops/veh	0.51			0.64		
1	Spatial Stop Rate, stops/mi	1.05			1.33		
1	Through vol/cap Ratio	0.52			0.51		
1	Percent of Base FFS	79.95			62.07		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.30			2.34		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.21		D	3.41		C
1	Bicycle Segment LOS Score / LOS	2.58		B	2.01		B
1	Transit Segment LOS Score / LOS	3.22		C	3.39		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	48.35	61.69
Facility Travel Speed, mph	35.82	28.07
Facility Base Free Flow Speed, mph	44.80	45.22
Facility Percent of Base FFS	79.95	62.07
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.30	2.34

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.21	D	3.41	C
Bicycle Facility LOS Score / LOS	2.58	C	2.01	B
Transit Facility LOS Score / LOS	3.22	C	3.39	C

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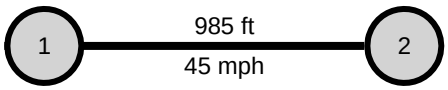
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.33			45.36		
1	Running Time, s	16.96			17.13		
1	Running Speed, mph	39.60			39.20		
1	Through Delay, s/veh	20.14			13.87		
1	Travel Time, s	37.10			31.00		
1	Travel Speed, mph	18.10			21.66		
1	Stop Rate, stops/veh	0.71			0.46		
1	Spatial Stop Rate, stops/mi	3.83			2.48		
1	Through vol/cap Ratio	0.68			0.67		
1	Percent of Base FFS	39.94			47.76		
1	Level of Service	E			D		
1	Auto Traveler Perception Score	3.00			2.52		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.49		C	3.81		D
1	Bicycle Segment LOS Score / LOS	2.77		C	2.95		C
1	Transit Segment LOS Score / LOS	4.94		E	4.90		E

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	37.10	31.00
Facility Travel Speed, mph	18.10	21.66
Facility Base Free Flow Speed, mph	45.33	45.36
Facility Percent of Base FFS	39.94	47.76
Facility Level of Service	E	D
Facility Auto Traveler Perception Score	3.00	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.49	C	3.81	D
Bicycle Facility LOS Score / LOS	2.77	C	2.95	C
Transit Facility LOS Score / LOS				

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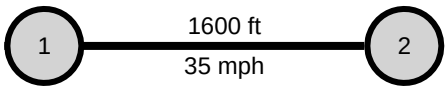
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	45	1	2	1600	1600	105	60	540	540	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	40.78			45.77		
1	Running Time, s	30.53			25.75		
1	Running Speed, mph	35.74			42.36		
1	Through Delay, s/veh	15.18			8.51		
1	Travel Time, s	45.71			34.26		
1	Travel Speed, mph	23.87			31.85		
1	Stop Rate, stops/veh	0.66			0.31		
1	Spatial Stop Rate, stops/mi	2.19			1.01		
1	Through vol/cap Ratio	0.52			0.33		
1	Percent of Base FFS	58.53			69.58		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.71			2.51		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.69		D	3.20		C
1	Bicycle Segment LOS Score / LOS	2.34		B	1.87		A
1	Transit Segment LOS Score / LOS	3.37		C	3.30		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	45.71	34.26
Facility Travel Speed, mph	23.87	31.85
Facility Base Free Flow Speed, mph	40.78	45.77
Facility Percent of Base FFS	58.53	69.58
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.71	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.69	D	3.20	C
Bicycle Facility LOS Score / LOS	2.34	C	1.87	A
Transit Facility LOS Score / LOS	3.37	C	3.30	C

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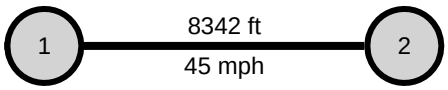
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	127.96			126.22		
1	Running Speed, mph	44.45			45.06		
1	Through Delay, s/veh	1.24			7.92		
1	Travel Time, s	129.20			134.14		
1	Travel Speed, mph	44.02			42.40		
1	Stop Rate, stops/veh	0.36			0.41		
1	Spatial Stop Rate, stops/mi	0.23			0.26		
1	Through vol/cap Ratio	0.49			0.24		
1	Percent of Base FFS	96.29			92.73		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.39		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.72		A	1.48		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	129.20	134.14
Facility Travel Speed, mph	44.02	42.40
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	96.29	92.73
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.72	A	1.48	A
Transit Facility LOS Score / LOS				

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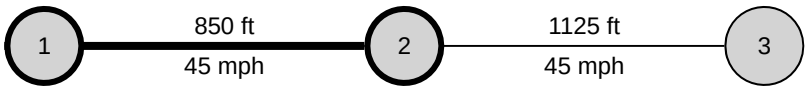
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	100	95	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.60			44.78		
1	Running Time, s	15.03			16.13		
1	Running Speed, mph	38.56			35.93		
1	Through Delay, s/veh	13.06			15.47		
1	Travel Time, s	28.09			31.60		
1	Travel Speed, mph	20.63			18.34		
1	Stop Rate, stops/veh	0.43			0.54		
1	Spatial Stop Rate, stops/mi	2.67			3.38		
1	Through vol/cap Ratio	0.43			0.63		
1	Percent of Base FFS	45.25			40.95		
1	Level of Service	D			D		
1	Auto Traveler Perception Score	2.79			2.68		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.95		C	4.40		E
1	Bicycle Segment LOS Score / LOS	2.24		B	2.30		B
1	Transit Segment LOS Score / LOS	2.19		B	5.22		F

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	90.49	58.24
Facility Travel Speed, mph	14.88	23.12
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	32.57	51.00
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.74	2.48

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.85	C	3.70	D
Bicycle Facility LOS Score / LOS	2.87	C	2.86	C
Transit Facility LOS Score / LOS	2.68	C	3.77	D

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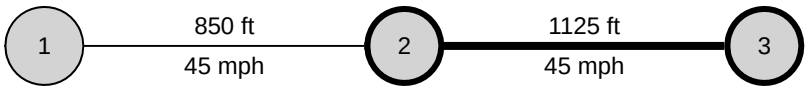
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	85	75	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.76			45.77		
2	Running Time, s	18.87			19.00		
2	Running Speed, mph	40.66			40.36		
2	Through Delay, s/veh	43.53			7.63		
2	Travel Time, s	62.40			26.64		
2	Travel Speed, mph	12.29			28.80		
2	Stop Rate, stops/veh	0.75			0.29		
2	Spatial Stop Rate, stops/mi	3.52			1.36		
2	Through vol/cap Ratio	0.65			0.50		
2	Percent of Base FFS	26.86			62.92		
2	Level of Service	F			C		
2	Auto Traveler Perception Score	2.70			2.34		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.76		C	3.18		C
2	Bicycle Segment LOS Score / LOS	3.35		C	3.28		C
2	Transit Segment LOS Score / LOS	3.05		C	2.66		B

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	90.49	58.24
Facility Travel Speed, mph	14.88	23.12
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	32.57	51.00
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.74	2.48

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.85	C	3.70	D
Bicycle Facility LOS Score / LOS	2.87	C	2.86	C
Transit Facility LOS Score / LOS	2.68	C	3.77	D

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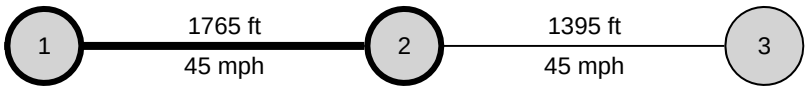
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	115	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.05			45.05		
1	Running Time, s	28.56			28.43		
1	Running Speed, mph	42.13			42.33		
1	Through Delay, s/veh	13.74			27.36		
1	Travel Time, s	42.31			55.79		
1	Travel Speed, mph	28.44			21.57		
1	Stop Rate, stops/veh	0.56			0.58		
1	Spatial Stop Rate, stops/mi	1.68			1.73		
1	Through vol/cap Ratio	0.78			0.46		
1	Percent of Base FFS	63.14			47.88		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.62			2.63		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.05		C	3.77		D
1	Bicycle Segment LOS Score / LOS	2.50		B	2.93		C
1	Transit Segment LOS Score / LOS	3.45		C	3.76		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	76.95	84.39
Facility Travel Speed, mph	28.00	25.53
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	61.90	56.44
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.52	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.22	C	4.17	F
Bicycle Facility LOS Score / LOS	2.37	C	2.67	C
Transit Facility LOS Score / LOS	4.15	D	3.97	D

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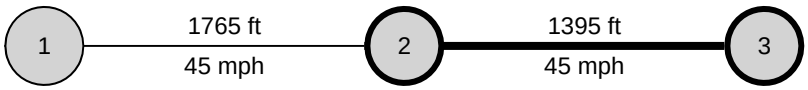
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.48			45.46		
2	Running Time, s	23.02			22.79		
2	Running Speed, mph	41.32			41.73		
2	Through Delay, s/veh	11.62			5.81		
2	Travel Time, s	34.64			28.60		
2	Travel Speed, mph	27.46			33.26		
2	Stop Rate, stops/veh	0.46			0.40		
2	Spatial Stop Rate, stops/mi	1.73			1.53		
2	Through vol/cap Ratio	0.42			0.44		
2	Percent of Base FFS	60.38			73.15		
2	Level of Service	C			B		
2	Auto Traveler Perception Score	2.40			2.37		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.44		C	4.69		F
2	Bicycle Segment LOS Score / LOS	2.21		B	2.34		B
2	Transit Segment LOS Score / LOS	5.03		F	4.25		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	76.95	84.39
Facility Travel Speed, mph	28.00	25.53
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	61.90	56.44
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.52	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.22	C	4.17	F
Bicycle Facility LOS Score / LOS	2.37	C	2.67	C
Transit Facility LOS Score / LOS	4.15	D	3.97	D

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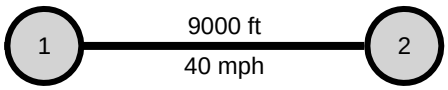
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	135	90	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	42.38			43.15		
1	Running Time, s	155.28			145.32		
1	Running Speed, mph	39.52			42.23		
1	Through Delay, s/veh	22.10			33.30		
1	Travel Time, s	177.37			178.62		
1	Travel Speed, mph	34.60			34.35		
1	Stop Rate, stops/veh	0.54			0.75		
1	Spatial Stop Rate, stops/mi	0.32			0.44		
1	Through vol/cap Ratio	0.02			0.38		
1	Percent of Base FFS	81.63			79.61		
1	Level of Service	A			B		
1	Auto Traveler Perception Score	2.19			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.95		C	2.64		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	177.37	178.62
Facility Travel Speed, mph	34.60	34.35
Facility Base Free Flow Speed, mph	42.38	43.15
Facility Percent of Base FFS	81.63	79.61
Facility Level of Service	A	B
Facility Auto Traveler Perception Score	2.19	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.95	C	2.64	C
Transit Facility LOS Score / LOS				

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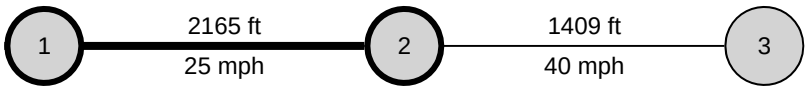
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	115	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	36.62			40.93		
1	Running Time, s	42.72			40.79		
1	Running Speed, mph	34.55			36.19		
1	Through Delay, s/veh	12.91			29.64		
1	Travel Time, s	55.64			70.43		
1	Travel Speed, mph	26.53			20.96		
1	Stop Rate, stops/veh	0.62			0.70		
1	Spatial Stop Rate, stops/mi	1.50			1.71		
1	Through vol/cap Ratio	0.43			0.30		
1	Percent of Base FFS	72.45			51.21		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.37			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.70		B	4.42		E
1	Bicycle Segment LOS Score / LOS	3.28		C	2.50		B
1	Transit Segment LOS Score / LOS	2.67		B	3.35		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	92.61	115.24
Facility Travel Speed, mph	26.31	21.15
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	67.23	54.01
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.38	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.06	C	3.95	D
Bicycle Facility LOS Score / LOS	2.97	C	2.46	C
Transit Facility LOS Score / LOS	3.13	C	3.36	C

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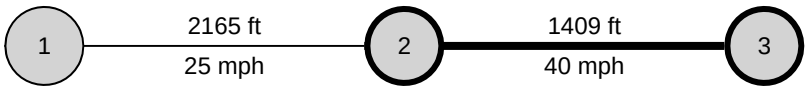
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	90	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	43.76			36.71		
2	Running Time, s	25.11			29.78		
2	Running Speed, mph	38.26			32.26		
2	Through Delay, s/veh	11.86			15.03		
2	Travel Time, s	36.97			44.80		
2	Travel Speed, mph	25.98			21.44		
2	Stop Rate, stops/veh	0.46			0.75		
2	Spatial Stop Rate, stops/mi	1.71			2.82		
2	Through vol/cap Ratio	0.45			0.65		
2	Percent of Base FFS	59.38			58.41		
2	Level of Service	C			C		
2	Auto Traveler Perception Score	2.40			2.58		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.61		D	3.22		C
2	Bicycle Segment LOS Score / LOS	2.50		B	2.40		B
2	Transit Segment LOS Score / LOS	3.83		D	3.37		C

Facility Output Data	**Eastbound**	**Westbound**
Facility Travel Time, s	92.61	115.24
Facility Travel Speed, mph	26.31	21.15
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	67.23	54.01
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.38	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.06	C	3.95	F
Bicycle Facility LOS Score / LOS	2.97	C	2.46	C
Transit Facility LOS Score / LOS	3.13	C	3.36	C

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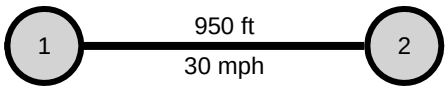
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	PM Peak Period	Number of Iterations	15
File Name	13. Collector A from LOVR to Co	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Collector A	Collector A/Collector B		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan TIS				



Basic Segment Information (Commercial Collector A)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	30	30	1	1	950	950	50	50	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	39.37			39.37		
1	Running Time, s	19.67			19.68		
1	Running Speed, mph	32.92			32.92		
1	Through Delay, s/veh	1.95			0.00		
1	Travel Time, s	21.62			19.68		
1	Travel Speed, mph	29.96			32.92		
1	Stop Rate, stops/veh	0.10			0.00		
1	Spatial Stop Rate, stops/mi	0.54			0.00		
1	Through vol/cap Ratio	0.11			0.00		
1	Percent of Base FFS	76.08			83.61		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.43			2.34		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.36		B	2.85		C
1	Bicycle Segment LOS Score / LOS	2.24		B	2.50		B
1	Transit Segment LOS Score / LOS	0.66		A	0.66		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	21.62	19.68
Facility Travel Speed, mph	29.96	32.92
Facility Base Free Flow Speed, mph	39.37	39.37
Facility Percent of Base FFS	76.08	83.61
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.43	2.34

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.36	C	2.85	C
Bicycle Facility LOS Score / LOS	2.24	B	2.50	C
Transit Facility LOS Score / LOS	0.66	A	0.66	A

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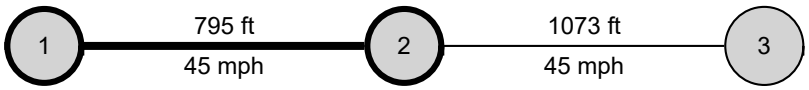
Multimodal Roadway Segment Analysis Sheets - Near Term Scenario 1 Conditions AM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.43			14.25		
1	Running Speed, mph	37.55			38.05		
1	Through Delay, s/veh	4.91			3.28		
1	Travel Time, s	19.34			17.53		
1	Travel Speed, mph	28.02			30.92		
1	Stop Rate, stops/veh	0.34			0.13		
1	Spatial Stop Rate, stops/mi	2.24			0.85		
1	Through vol/cap Ratio	0.47			0.20		
1	Percent of Base FFS	62.28			68.76		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.49			2.48		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.70		D	3.07		C
1	Bicycle Segment LOS Score / LOS	2.12		B	1.84		A
1	Transit Segment LOS Score / LOS	3.62		D	2.62		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	40.03	44.04
Facility Travel Speed, mph	31.82	28.92
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	70.00	63.63
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.30	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.67	D	3.29	C
Bicycle Facility LOS Score / LOS	2.04	B	1.61	A
Transit Facility LOS Score / LOS	2.91	C	1.75	A

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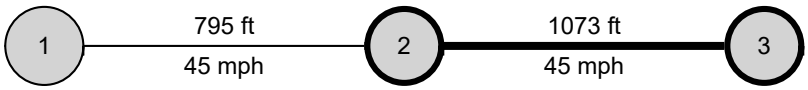
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.36			18.11		
2	Running Speed, mph	39.85			40.41		
2	Through Delay, s/veh	2.32			8.41		
2	Travel Time, s	20.68			26.51		
2	Travel Speed, mph	35.37			27.59		
2	Stop Rate, stops/veh	0.06			0.48		
2	Spatial Stop Rate, stops/mi	0.32			2.34		
2	Through vol/cap Ratio	0.43			0.30		
2	Percent of Base FFS	77.21			60.25		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.19			2.73		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.65		D	3.46		C
2	Bicycle Segment LOS Score / LOS	1.98		A	1.43		A
2	Transit Segment LOS Score / LOS	2.39		B	1.11		A

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	40.03	44.04
Facility Travel Speed, mph	31.82	28.92
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	70.00	63.63
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.30	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.67	D	3.29	C
Bicycle Facility LOS Score / LOS	2.04	B	1.61	A
Transit Facility LOS Score / LOS	2.91	C	1.75	A

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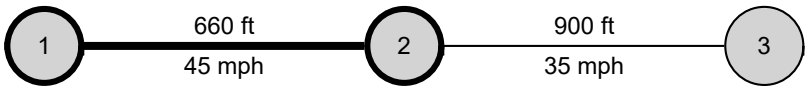
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.78			12.59		
1	Running Speed, mph	35.20			35.75		
1	Through Delay, s/veh	22.11			2.20		
1	Travel Time, s	34.90			14.79		
1	Travel Speed, mph	12.90			30.43		
1	Stop Rate, stops/veh	0.63			0.08		
1	Spatial Stop Rate, stops/mi	5.03			0.63		
1	Through vol/cap Ratio	0.72			0.22		
1	Percent of Base FFS	28.25			66.78		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	2.97			2.23		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.61		D	2.99		C
1	Bicycle Segment LOS Score / LOS	2.40		B	1.51		A
1	Transit Segment LOS Score / LOS	2.54		B	2.82		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	85.83	44.29
Facility Travel Speed, mph	12.39	24.02
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	29.06	52.58
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	2.96	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.35	C	2.83	C
Bicycle Facility LOS Score / LOS	2.32	C	1.57	A
Transit Facility LOS Score / LOS	2.49	C	2.78	C

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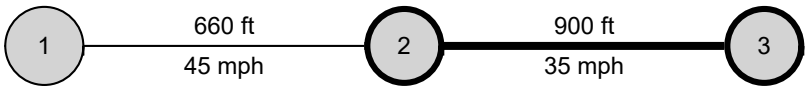
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.13			15.61		
2	Running Speed, mph	32.08			39.32		
2	Through Delay, s/veh	31.81			13.89		
2	Travel Time, s	50.94			29.50		
2	Travel Speed, mph	12.05			20.80		
2	Stop Rate, stops/veh	0.85			0.42		
2	Spatial Stop Rate, stops/mi	4.96			2.46		
2	Through vol/cap Ratio	0.85			0.28		
2	Percent of Base FFS	29.62			45.46		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	2.96			2.52		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.16		C	2.71		B
2	Bicycle Segment LOS Score / LOS	2.27		B	1.62		A
2	Transit Segment LOS Score / LOS	2.45		B	2.75		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	85.83	44.29
Facility Travel Speed, mph	12.39	24.02
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	29.06	52.58
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	2.96	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.35	C	2.83	C
Bicycle Facility LOS Score / LOS	2.32	C	1.57	A
Transit Facility LOS Score / LOS	2.49	C	2.78	C

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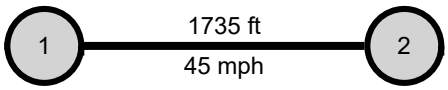
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	115	107	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.82			44.83		
1	Running Time, s	27.63			27.52		
1	Running Speed, mph	42.81			42.98		
1	Through Delay, s/veh	16.25			35.87		
1	Travel Time, s	43.89			63.40		
1	Travel Speed, mph	26.95			18.66		
1	Stop Rate, stops/veh	0.66			0.81		
1	Spatial Stop Rate, stops/mi	2.01			2.47		
1	Through vol/cap Ratio	0.47			0.52		
1	Percent of Base FFS	60.14			41.63		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.45			2.52		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.26		C	3.20		F
1	Bicycle Segment LOS Score / LOS	2.60		B	1.48		A
1	Transit Segment LOS Score / LOS	3.53		D	2.06		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	43.89	63.40
Facility Travel Speed, mph	26.95	18.66
Facility Base Free Flow Speed, mph	44.82	44.83
Facility Percent of Base FFS	60.14	41.63
Facility Level of Service	C	D
Facility Auto Traveler Perception Score	2.45	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.26	C	3.20	F
Bicycle Facility LOS Score / LOS	2.60	C	1.48	A
Transit Facility LOS Score / LOS	3.53	D	2.06	B

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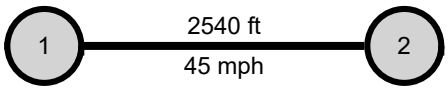
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.01			39.80		
1	Running Speed, mph	43.29			43.51		
1	Through Delay, s/veh	20.37			25.67		
1	Travel Time, s	60.38			65.47		
1	Travel Speed, mph	28.68			26.45		
1	Stop Rate, stops/veh	0.66			0.69		
1	Spatial Stop Rate, stops/mi	1.37			1.44		
1	Through vol/cap Ratio	0.56			0.48		
1	Percent of Base FFS	64.02			58.49		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.35			2.36		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.32		C	3.33		C
1	Bicycle Segment LOS Score / LOS	2.44		B	1.93		A
1	Transit Segment LOS Score / LOS	3.22		C	3.38		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	60.38	65.47
Facility Travel Speed, mph	28.68	26.45
Facility Base Free Flow Speed, mph	44.80	45.22
Facility Percent of Base FFS	64.02	58.49
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.35	2.36

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.32	C	3.33	C
Bicycle Facility LOS Score / LOS	2.44	C	1.93	A
Transit Facility LOS Score / LOS	3.22	C	3.38	C

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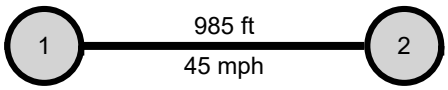
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	35	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph		45.33			40.66	
1	Running Time, s		16.93			20.03	
1	Running Speed, mph		39.66			33.53	
1	Through Delay, s/veh		13.30			13.75	
1	Travel Time, s		30.23			33.78	
1	Travel Speed, mph		22.43			20.13	
1	Stop Rate, stops/veh		0.41			0.58	
1	Spatial Stop Rate, stops/mi		2.21			3.08	
1	Through vol/cap Ratio		0.50			0.34	
1	Percent of Base FFS		49.48			49.51	
1	Level of Service		D			D	
1	Auto Traveler Perception Score		2.71			2.63	
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.59		D	3.29		C
1	Bicycle Segment LOS Score / LOS	2.79		C	2.50		B
1	Transit Segment LOS Score / LOS	4.80		E	4.82		E

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	30.23	33.78
Facility Travel Speed, mph	22.22	19.88
Facility Base Free Flow Speed, mph	45.33	40.66
Facility Percent of Base FFS	49.01	48.89
Facility Level of Service	D	D
Facility Auto Traveler Perception Score	2.71	2.63

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.59	D	3.29	C
Bicycle Facility LOS Score / LOS	2.79	C	2.50	C
Transit Facility LOS Score / LOS	4.80	E	4.82	E

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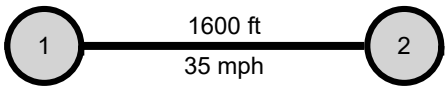
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	35	1	2	1600	1600	72	60	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	40.64			41.19		
1	Running Time, s	31.59			30.11		
1	Running Speed, mph	34.54			36.24		
1	Through Delay, s/veh	20.59			10.63		
1	Travel Time, s	52.17			40.74		
1	Travel Speed, mph	20.91			26.78		
1	Stop Rate, stops/veh	0.72			0.40		
1	Spatial Stop Rate, stops/mi	2.38			1.33		
1	Through vol/cap Ratio	0.69			0.58		
1	Percent of Base FFS	51.45			65.02		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.74			2.56		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.24		D	3.73		D
1	Bicycle Segment LOS Score / LOS	2.39		B	1.85		A
1	Transit Segment LOS Score / LOS	3.93		D	3.66		D

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	52.17	40.74
Facility Travel Speed, mph	20.91	26.78
Facility Base Free Flow Speed, mph	40.64	41.19
Facility Percent of Base FFS	51.45	65.02
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.74	2.56

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.24	D	3.73	D
Bicycle Facility LOS Score / LOS	2.39	C	1.85	A
Transit Facility LOS Score / LOS	3.93	D	3.66	D

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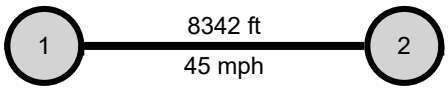
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	126.64			126.92		
1	Running Speed, mph	44.91			44.81		
1	Through Delay, s/veh	1.04			12.81		
1	Travel Time, s	127.67			139.72		
1	Travel Speed, mph	44.55			40.71		
1	Stop Rate, stops/veh	0.36			0.57		
1	Spatial Stop Rate, stops/mi	0.23			0.36		
1	Through vol/cap Ratio	0.31			0.40		
1	Percent of Base FFS	97.44			89.02		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.55		A	1.60		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	127.67	139.72
Facility Travel Speed, mph	44.55	40.71
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	97.44	89.02
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.40

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.55	A	1.60	A
Transit Facility LOS Score / LOS				

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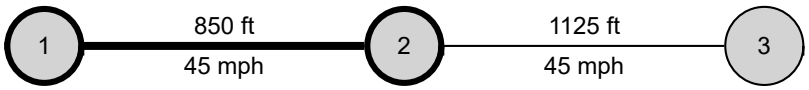
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	110	90	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.59			44.80		
1	Running Time, s	15.31			15.36		
1	Running Speed, mph	37.84			37.74		
1	Through Delay, s/veh	11.76			19.59		
1	Travel Time, s	27.08			34.95		
1	Travel Speed, mph	21.41			16.58		
1	Stop Rate, stops/veh	0.42			0.66		
1	Spatial Stop Rate, stops/mi	2.58			4.08		
1	Through vol/cap Ratio	0.69			0.49		
1	Percent of Base FFS	46.96			37.01		
1	Level of Service	D			E		
1	Auto Traveler Perception Score	2.78			2.80		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.15		C	3.85		D
1	Bicycle Segment LOS Score / LOS	2.44		B	2.07		B
1	Transit Segment LOS Score / LOS	3.20		C	3.18		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	75.18	56.76
Facility Travel Speed, mph	17.91	23.72
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	39.21	52.33
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.67	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.88	C	3.32	C
Bicycle Facility LOS Score / LOS	2.91	C	2.58	C
Transit Facility LOS Score / LOS	3.26	C	4.15	D

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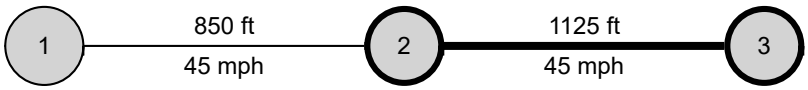
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	95	115	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.76			45.74		
2	Running Time, s	19.06			18.79		
2	Running Speed, mph	40.25			40.82		
2	Through Delay, s/veh	29.05			3.02		
2	Travel Time, s	48.10			21.81		
2	Travel Speed, mph	15.95			35.17		
2	Stop Rate, stops/veh	0.61			0.13		
2	Spatial Stop Rate, stops/mi	2.87			0.59		
2	Through vol/cap Ratio	0.44			0.25		
2	Percent of Base FFS	34.85			76.89		
2	Level of Service	E			B		
2	Auto Traveler Perception Score	2.59			2.23		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.68		B	2.92		C
2	Bicycle Segment LOS Score / LOS	3.26		C	2.96		C
2	Transit Segment LOS Score / LOS	3.30		C	4.88		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	75.18	56.76
Facility Travel Speed, mph	17.91	23.72
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	39.21	52.33
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.67	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.88	C	3.32	C
Bicycle Facility LOS Score / LOS	2.91	C	2.58	C
Transit Facility LOS Score / LOS	3.26	C	4.15	D

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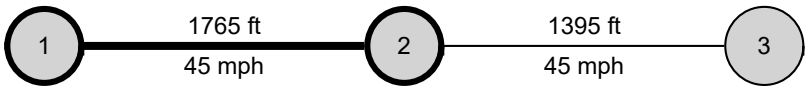
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	85	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.05			45.07		
1	Running Time, s	28.21			28.26		
1	Running Speed, mph	42.65			42.58		
1	Through Delay, s/veh	8.10			14.64		
1	Travel Time, s	36.31			42.90		
1	Travel Speed, mph	33.14			28.05		
1	Stop Rate, stops/veh	0.52			0.43		
1	Spatial Stop Rate, stops/mi	1.56			1.27		
1	Through vol/cap Ratio	0.51			0.25		
1	Percent of Base FFS	73.57			62.23		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.60			2.55		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.35		B	3.49		C
1	Bicycle Segment LOS Score / LOS	2.14		B	2.58		B
1	Transit Segment LOS Score / LOS	3.24		C	3.28		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	82.51	69.03
Facility Travel Speed, mph	26.11	31.21
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	57.76	69.03
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.59	2.45

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.62	C	3.52	F
Bicycle Facility LOS Score / LOS	2.09	B	2.49	C
Transit Facility LOS Score / LOS	3.32	C	3.59	D

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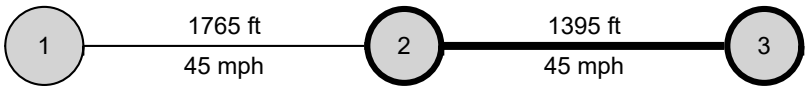
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	75	75	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph		45.42			45.40	
2	Running Time, s		22.66			22.80	
2	Running Speed, mph		41.97			41.72	
2	Through Delay, s/veh		23.54			3.33	
2	Travel Time, s		46.20			26.13	
2	Travel Speed, mph		20.59			36.40	
2	Stop Rate, stops/veh		0.75			0.33	
2	Spatial Stop Rate, stops/mi		2.82			1.25	
2	Through vol/cap Ratio		0.50			0.38	
2	Percent of Base FFS		45.33			80.19	
2	Level of Service		D			A	
2	Auto Traveler Perception Score		2.58			2.33	
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.95		C	3.56		F
2	Bicycle Segment LOS Score / LOS	2.02		B	2.37		B
2	Transit Segment LOS Score / LOS	3.43		C	3.97		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	82.51	69.03
Facility Travel Speed, mph	26.11	31.21
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	57.76	69.03
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.59	2.45

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.62	C	3.52	F
Bicycle Facility LOS Score / LOS	2.09	B	2.49	C
Transit Facility LOS Score / LOS	3.32	C	3.59	D

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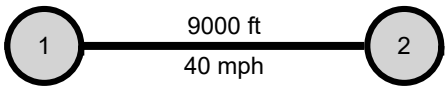
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	60	70	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	42.40			43.15		
1	Running Time, s	156.80			146.49		
1	Running Speed, mph	39.14			41.89		
1	Through Delay, s/veh	24.40			33.57		
1	Travel Time, s	181.20			180.05		
1	Travel Speed, mph	33.87			34.08		
1	Stop Rate, stops/veh	0.53			0.67		
1	Spatial Stop Rate, stops/mi	0.31			0.39		
1	Through vol/cap Ratio	0.03			0.26		
1	Percent of Base FFS	79.88			78.97		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.19			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.90		C	2.74		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound		Eastbound	
Facility Travel Time, s	181.20		180.05	
Facility Travel Speed, mph	33.87		34.08	
Facility Base Free Flow Speed, mph	42.40		43.15	
Facility Percent of Base FFS	79.88		78.97	
Facility Level of Service	B		B	
Facility Auto Traveler Perception Score	2.19		2.41	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.90	C	2.74	C
Transit Facility LOS Score / LOS				

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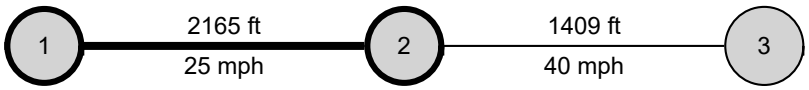
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	110	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	36.52			40.73		
1	Running Time, s	43.37			39.80		
1	Running Speed, mph	34.04			37.09		
1	Through Delay, s/veh	20.26			27.95		
1	Travel Time, s	63.63			67.75		
1	Travel Speed, mph	23.20			21.79		
1	Stop Rate, stops/veh	0.78			0.68		
1	Spatial Stop Rate, stops/mi	1.91			1.66		
1	Through vol/cap Ratio	0.83			0.22		
1	Percent of Base FFS	63.52			53.49		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.43			2.39		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.73		F	4.12		F
1	Bicycle Segment LOS Score / LOS	3.45		C	2.34		B
1	Transit Segment LOS Score / LOS	3.17		C	3.15		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	115.45	115.91
Facility Travel Speed, mph	21.11	21.02
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	54.23	54.13
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.46	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.48	F	3.89	F
Bicycle Facility LOS Score / LOS	3.14	C	2.25	C
Transit Facility LOS Score / LOS	3.38	C	3.36	C

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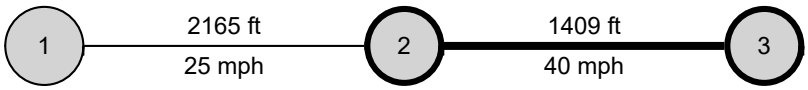
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	76	70	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	43.30			36.25		
2	Running Time, s	25.76			29.50		
2	Running Speed, mph	37.29			32.57		
2	Through Delay, s/veh	26.05			18.66		
2	Travel Time, s	51.81			48.16		
2	Travel Speed, mph	18.54			19.95		
2	Stop Rate, stops/veh	0.61			0.79		
2	Spatial Stop Rate, stops/mi	2.28			2.95		
2	Through vol/cap Ratio	0.56			0.60		
2	Percent of Base FFS	42.82			55.02		
2	Level of Service	D			C		
2	Auto Traveler Perception Score	2.49			2.60		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	4.09		D	3.53		D
2	Bicycle Segment LOS Score / LOS	2.67		B	2.13		B
2	Transit Segment LOS Score / LOS	3.71		D	3.70		D

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	115.45	115.91
Facility Travel Speed, mph	21.11	21.02
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	54.23	54.13
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.46	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.48	F	3.89	F
Bicycle Facility LOS Score / LOS	3.14	C	2.25	C
Transit Facility LOS Score / LOS	3.38	C	3.36	C

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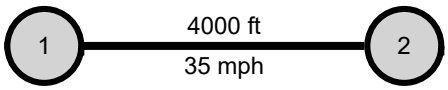
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	12. Froom Ranch Way from LOV	Analysis Year	2019	System Cycle Length, s	120
Intersections	Froom Ranch Way/Dalidio Drive	Froom Ranch Way/LOVR		Analysis Period	1> 7:00
Project Description	Froom Ranch TIS				



Basic Segment Information (Froom Ranch Way between LOVR and Dalido Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	35	35	1	1	4000	4000	120	100	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	41.08			41.09		
1	Running Time, s	67.81			68.03		
1	Running Speed, mph	40.22			40.09		
1	Through Delay, s/veh	18.67			4.83		
1	Travel Time, s	86.48			72.86		
1	Travel Speed, mph	31.54			37.43		
1	Stop Rate, stops/veh	0.84			0.20		
1	Spatial Stop Rate, stops/mi	1.10			0.26		
1	Through vol/cap Ratio	0.30			0.00		
1	Percent of Base FFS	76.76			91.10		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.31			2.18		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.84		C	2.24		B
1	Bicycle Segment LOS Score / LOS	1.12		A	1.22		A
1	Transit Segment LOS Score / LOS	0.75		A	0.42		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	86.48	72.86
Facility Travel Speed, mph	31.54	37.43
Facility Base Free Flow Speed, mph	41.08	41.09
Facility Percent of Base FFS	76.76	91.10
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.31	2.18

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.84	C	2.24	B
Bicycle Facility LOS Score / LOS	1.12	A	1.22	A
Transit Facility LOS Score / LOS	0.75	A	0.42	A

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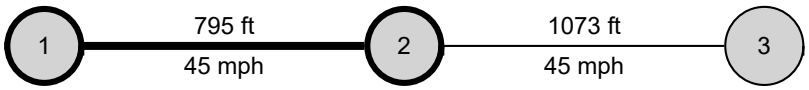
Multimodal Roadway Segment Analysis Sheets - Near Term Scenario 1 Conditions PM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.40			14.57		
1	Running Speed, mph	37.65			37.20		
1	Through Delay, s/veh	3.16			3.24		
1	Travel Time, s	17.56			17.81		
1	Travel Speed, mph	30.88			30.44		
1	Stop Rate, stops/veh	0.26			0.11		
1	Spatial Stop Rate, stops/mi	1.70			0.76		
1	Through vol/cap Ratio	0.40			0.45		
1	Percent of Base FFS	68.63			67.68		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.40			2.47		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.60		D	3.96		D
1	Bicycle Segment LOS Score / LOS	2.09		B	2.18		B
1	Transit Segment LOS Score / LOS	3.61		D	2.77		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	38.17	45.91
Facility Travel Speed, mph	33.37	27.74
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	73.40	61.04
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.28	2.61

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.54	D	4.12	D
Bicycle Facility LOS Score / LOS	1.99	A	1.89	A
Transit Facility LOS Score / LOS	2.88	C	1.96	A

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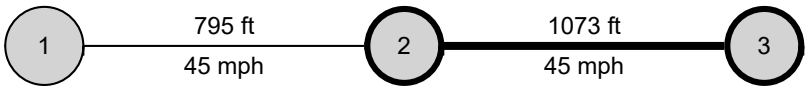
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.24			18.49		
2	Running Speed, mph	40.10			39.57		
2	Through Delay, s/veh	2.37			9.62		
2	Travel Time, s	20.61			28.11		
2	Travel Speed, mph	35.49			26.03		
2	Stop Rate, stops/veh	0.07			0.47		
2	Spatial Stop Rate, stops/mi	0.36			2.33		
2	Through vol/cap Ratio	0.38			0.71		
2	Percent of Base FFS	77.48			56.83		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.19			2.73		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.50		D	4.23		D
2	Bicycle Segment LOS Score / LOS	1.91		A	1.67		A
2	Transit Segment LOS Score / LOS	2.34		B	1.36		A

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	38.17	45.91
Facility Travel Speed, mph	33.37	27.74
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	73.40	61.04
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.28	2.61

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.54	D	4.12	D
Bicycle Facility LOS Score / LOS	1.99	A	1.89	A
Transit Facility LOS Score / LOS	2.88	C	1.96	A

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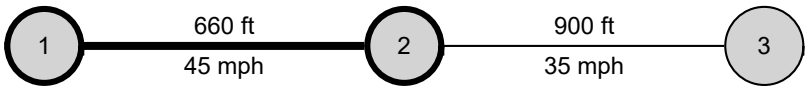
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.72			12.69		
1	Running Speed, mph	35.37			35.47		
1	Through Delay, s/veh	31.09			2.89		
1	Travel Time, s	43.82			15.58		
1	Travel Speed, mph	10.27			28.89		
1	Stop Rate, stops/veh	0.81			0.10		
1	Spatial Stop Rate, stops/mi	6.48			0.84		
1	Through vol/cap Ratio	0.90			0.34		
1	Percent of Base FFS	22.50			63.39		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	3.25			2.26		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.50		C	3.38		C
1	Bicycle Segment LOS Score / LOS	2.34		B	1.70		A
1	Transit Segment LOS Score / LOS	2.85		C	2.90		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	108.77	47.80
Facility Travel Speed, mph	9.78	22.25
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	22.93	48.72
Facility Level of Service	F	D
Facility Auto Traveler Perception Score	3.14	2.55

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.25	C	3.19	C
Bicycle Facility LOS Score / LOS	2.26	C	1.80	A
Transit Facility LOS Score / LOS	2.61	C	2.90	C

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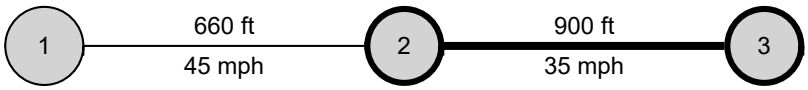
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.05			15.81		
2	Running Speed, mph	32.21			38.81		
2	Through Delay, s/veh	45.91			16.41		
2	Travel Time, s	64.96			32.22		
2	Travel Speed, mph	9.45			19.05		
2	Stop Rate, stops/veh	0.95			0.69		
2	Spatial Stop Rate, stops/mi	5.55			4.08		
2	Through vol/cap Ratio	0.92			0.64		
2	Percent of Base FFS	23.22			41.63		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	3.07			2.80		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.07		C	3.06		C
2	Bicycle Segment LOS Score / LOS	2.20		B	1.88		A
2	Transit Segment LOS Score / LOS	2.43		B	2.90		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	108.77	47.80
Facility Travel Speed, mph	9.78	22.25
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	22.93	48.72
Facility Level of Service	F	D
Facility Auto Traveler Perception Score	3.14	2.55

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.25	C	3.19	C
Bicycle Facility LOS Score / LOS	2.26	C	1.80	A
Transit Facility LOS Score / LOS	2.61	C	2.90	C

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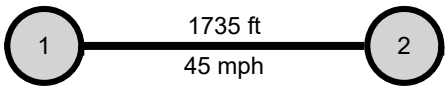
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 4:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	107	115	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.83			44.82		
1	Running Time, s	27.69			27.89		
1	Running Speed, mph	42.73			42.41		
1	Through Delay, s/veh	30.11			41.95		
1	Travel Time, s	57.80			69.85		
1	Travel Speed, mph	20.47			16.94		
1	Stop Rate, stops/veh	0.80			0.89		
1	Spatial Stop Rate, stops/mi	2.44			2.71		
1	Through vol/cap Ratio	0.66			0.90		
1	Percent of Base FFS	45.66			37.79		
1	Level of Service	D			E		
1	Auto Traveler Perception Score	2.52			2.56		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.38		C	3.61		D
1	Bicycle Segment LOS Score / LOS	2.62		B	1.79		A
1	Transit Segment LOS Score / LOS	3.72		D	2.15		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	57.80	69.85
Facility Travel Speed, mph	20.47	16.94
Facility Base Free Flow Speed, mph	44.83	44.82
Facility Percent of Base FFS	45.66	37.79
Facility Level of Service	D	E
Facility Auto Traveler Perception Score	2.52	2.56

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.38	C	3.61	D
Bicycle Facility LOS Score / LOS	2.62	C	1.79	A
Transit Facility LOS Score / LOS	3.72	D	2.15	B

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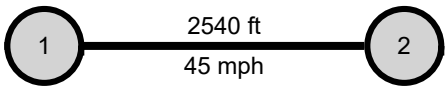
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.53			40.18		
1	Running Speed, mph	42.73			43.10		
1	Through Delay, s/veh	10.59			22.74		
1	Travel Time, s	51.12			62.92		
1	Travel Speed, mph	33.88			27.52		
1	Stop Rate, stops/veh	0.56			0.68		
1	Spatial Stop Rate, stops/mi	1.16			1.41		
1	Through vol/cap Ratio	0.65			0.55		
1	Percent of Base FFS	75.61			60.86		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.31			2.35		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.68		D	3.37		C
1	Bicycle Segment LOS Score / LOS	2.63		B	2.00		B
1	Transit Segment LOS Score / LOS	3.14		C	3.38		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	51.12	62.92
Facility Travel Speed, mph	33.88	27.52
Facility Base Free Flow Speed, mph	44.80	45.22
Facility Percent of Base FFS	75.61	60.86
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.35

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.68	D	3.37	C
Bicycle Facility LOS Score / LOS	2.63	C	2.00	B
Transit Facility LOS Score / LOS	3.14	C	3.38	C

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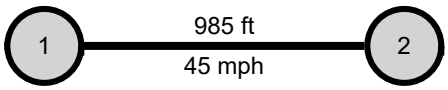
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.33			45.36		
1	Running Time, s	16.95			17.05		
1	Running Speed, mph	39.63			39.40		
1	Through Delay, s/veh	19.84			9.94		
1	Travel Time, s	36.79			26.99		
1	Travel Speed, mph	18.25			24.88		
1	Stop Rate, stops/veh	0.64			0.37		
1	Spatial Stop Rate, stops/mi	3.41			1.97		
1	Through vol/cap Ratio	0.40			0.53		
1	Percent of Base FFS	40.27			54.86		
1	Level of Service	D			C		
1	Auto Traveler Perception Score	2.92			2.44		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.46		C	3.67		D
1	Bicycle Segment LOS Score / LOS	2.78		C	2.89		C
1	Transit Segment LOS Score / LOS	3.82		D	3.75		D

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	36.79	26.99
Facility Travel Speed, mph	18.25	24.88
Facility Base Free Flow Speed, mph	45.33	45.36
Facility Percent of Base FFS	40.27	54.86
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.92	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.46	C	3.67	D
Bicycle Facility LOS Score / LOS	2.78	C	2.89	C
Transit Facility LOS Score / LOS	3.82	D	3.75	D

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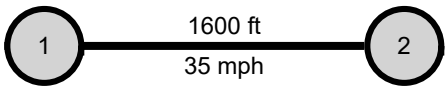
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	45	1	2	1600	1600	105	60	540	540	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	40.78			45.77		
1	Running Time, s	30.64			25.90		
1	Running Speed, mph	35.61			42.13		
1	Through Delay, s/veh	18.51			8.86		
1	Travel Time, s	49.15			34.76		
1	Travel Speed, mph	22.20			31.38		
1	Stop Rate, stops/veh	0.71			0.32		
1	Spatial Stop Rate, stops/mi	2.34			1.04		
1	Through vol/cap Ratio	0.59			0.38		
1	Percent of Base FFS	54.44			68.57		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.73			2.51		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.74		D	3.36		C
1	Bicycle Segment LOS Score / LOS	2.37		B	1.95		A
1	Transit Segment LOS Score / LOS	3.44		C	3.35		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	49.15	34.76
Facility Travel Speed, mph	22.20	31.38
Facility Base Free Flow Speed, mph	40.78	45.77
Facility Percent of Base FFS	54.44	68.57
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.73	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.74	D	3.36	C
Bicycle Facility LOS Score / LOS	2.37	C	1.95	A
Transit Facility LOS Score / LOS	3.44	C	3.35	C

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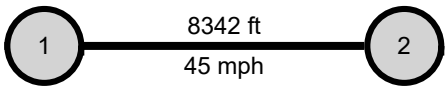
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	128.67			126.22		
1	Running Speed, mph	44.20			45.06		
1	Through Delay, s/veh	1.35			8.86		
1	Travel Time, s	130.03			135.09		
1	Travel Speed, mph	43.74			42.10		
1	Stop Rate, stops/veh	0.36			0.40		
1	Spatial Stop Rate, stops/mi	0.23			0.25		
1	Through vol/cap Ratio	0.58			0.22		
1	Percent of Base FFS	95.67			92.08		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.38		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.78		A	1.48		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	130.03	135.09
Facility Travel Speed, mph	43.74	42.10
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	95.67	92.08
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.38

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.78	A	1.48	A
Transit Facility LOS Score / LOS				

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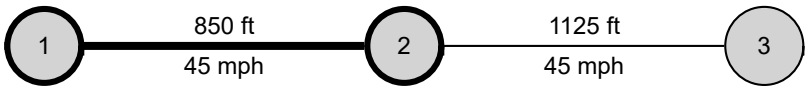
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	100	95	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.60			44.78		
1	Running Time, s	15.11			16.57		
1	Running Speed, mph	38.36			34.97		
1	Through Delay, s/veh	17.78			21.08		
1	Travel Time, s	32.89			37.65		
1	Travel Speed, mph	17.62			15.39		
1	Stop Rate, stops/veh	0.50			0.61		
1	Spatial Stop Rate, stops/mi	3.10			3.77		
1	Through vol/cap Ratio	0.57			0.76		
1	Percent of Base FFS	38.64			34.37		
1	Level of Service	E			E		
1	Auto Traveler Perception Score	2.87			2.74		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.09		C	4.55		E
1	Bicycle Segment LOS Score / LOS	2.32		B	2.38		B
1	Transit Segment LOS Score / LOS	2.48		B	5.41		F

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	96.55	67.92
Facility Travel Speed, mph	13.95	19.83
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	30.52	43.73
Facility Level of Service	E	D
Facility Auto Traveler Perception Score	2.76	2.54

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.02	C	3.88	D
Bicycle Facility LOS Score / LOS	2.93	C	2.92	C
Transit Facility LOS Score / LOS	3.06	C	3.96	D

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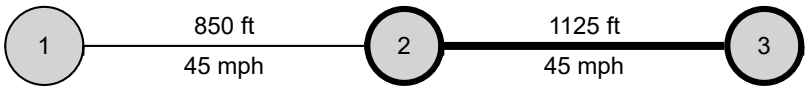
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	85	75	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.76			45.77		
2	Running Time, s	18.98			19.13		
2	Running Speed, mph	40.41			40.10		
2	Through Delay, s/veh	44.68			11.13		
2	Travel Time, s	63.66			30.26		
2	Travel Speed, mph	12.05			25.34		
2	Stop Rate, stops/veh	0.74			0.36		
2	Spatial Stop Rate, stops/mi	3.45			1.71		
2	Through vol/cap Ratio	0.65			0.59		
2	Percent of Base FFS	26.33			55.38		
2	Level of Service	F			C		
2	Auto Traveler Perception Score	2.69			2.40		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.96		C	3.37		C
2	Bicycle Segment LOS Score / LOS	3.39		C	3.34		C
2	Transit Segment LOS Score / LOS	3.49		C	2.87		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	96.55	67.92
Facility Travel Speed, mph	13.95	19.83
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	30.52	43.73
Facility Level of Service	E	D
Facility Auto Traveler Perception Score	2.76	2.54

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.02	C	3.88	D
Bicycle Facility LOS Score / LOS	2.93	C	2.92	C
Transit Facility LOS Score / LOS	3.06	C	3.96	D

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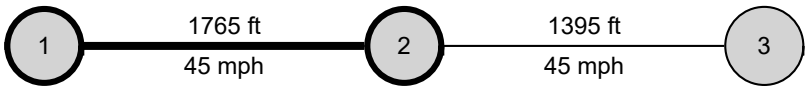
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	115	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.05			45.05		
1	Running Time, s	28.66			28.61		
1	Running Speed, mph	41.99			42.07		
1	Through Delay, s/veh	16.31			29.74		
1	Travel Time, s	44.96			58.35		
1	Travel Speed, mph	26.76			20.63		
1	Stop Rate, stops/veh	0.60			0.61		
1	Spatial Stop Rate, stops/mi	1.80			1.83		
1	Through vol/cap Ratio	0.88			0.56		
1	Percent of Base FFS	59.41			45.78		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.64			2.64		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.16		C	3.97		D
1	Bicycle Segment LOS Score / LOS	2.54		B	2.99		C
1	Transit Segment LOS Score / LOS	3.51		D	3.82		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	93.56	87.67
Facility Travel Speed, mph	23.03	24.57
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	50.91	54.33
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.62	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.31	C	4.39	F
Bicycle Facility LOS Score / LOS	2.41	C	2.75	C
Transit Facility LOS Score / LOS	4.22	D	4.05	D

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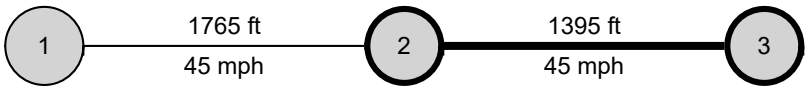
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph		45.48			45.46	
2	Running Time, s		23.10			23.12	
2	Running Speed, mph		41.18			41.13	
2	Through Delay, s/veh		25.50			6.20	
2	Travel Time, s		48.60			29.33	
2	Travel Speed, mph		19.57			32.43	
2	Stop Rate, stops/veh		0.77			0.40	
2	Spatial Stop Rate, stops/mi		2.92			1.50	
2	Through vol/cap Ratio		0.81			0.53	
2	Percent of Base FFS		43.03			71.34	
2	Level of Service		D			B	
2	Auto Traveler Perception Score		2.60			2.37	
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.51		D	4.92		F
2	Bicycle Segment LOS Score / LOS	2.24		B	2.45		B
2	Transit Segment LOS Score / LOS	5.12		F	4.35		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	93.56	87.67
Facility Travel Speed, mph	23.03	24.57
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	50.91	54.33
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.62	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.31	C	4.39	F
Bicycle Facility LOS Score / LOS	2.41	C	2.75	C
Transit Facility LOS Score / LOS	4.22	D	4.05	D

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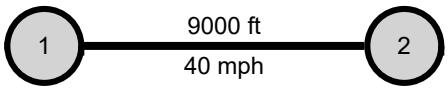
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	135	90	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	42.38			43.15		
1	Running Time, s	155.28			146.16		
1	Running Speed, mph	39.52			41.98		
1	Through Delay, s/veh	26.36			33.43		
1	Travel Time, s	181.63			179.59		
1	Travel Speed, mph	33.78			34.17		
1	Stop Rate, stops/veh	0.58			0.74		
1	Spatial Stop Rate, stops/mi	0.34			0.43		
1	Through vol/cap Ratio	0.03			0.43		
1	Percent of Base FFS	79.71			79.18		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.19			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.99		C	2.71		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound		Eastbound	
Facility Travel Time, s	181.63		179.59	
Facility Travel Speed, mph	33.78		34.17	
Facility Base Free Flow Speed, mph	42.38		43.15	
Facility Percent of Base FFS	79.71		79.18	
Facility Level of Service	B		B	
Facility Auto Traveler Perception Score	2.19		2.41	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.99	C	2.71	C
Transit Facility LOS Score / LOS				

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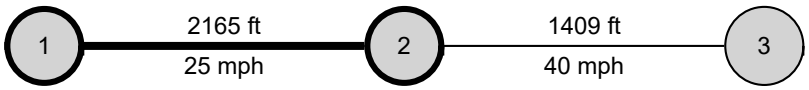
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	Maddona Rd/Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	115	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	36.62			40.93		
1	Running Time, s	42.64			40.77		
1	Running Speed, mph	34.62			36.21		
1	Through Delay, s/veh	14.56			30.91		
1	Travel Time, s	57.20			71.68		
1	Travel Speed, mph	25.81			20.59		
1	Stop Rate, stops/veh	0.62			0.72		
1	Spatial Stop Rate, stops/mi	1.52			1.76		
1	Through vol/cap Ratio	0.41			0.36		
1	Percent of Base FFS	70.48			50.32		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.37			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.65		B	4.42		E
1	Bicycle Segment LOS Score / LOS	3.27		C	2.50		B
1	Transit Segment LOS Score / LOS	2.70		B	3.37		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	110.32	117.47
Facility Travel Speed, mph	22.09	20.74
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	56.44	52.98
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.42	2.48

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.03	C	3.93	D
Bicycle Facility LOS Score / LOS	2.97	C	2.47	C
Transit Facility LOS Score / LOS	3.23	C	3.37	C

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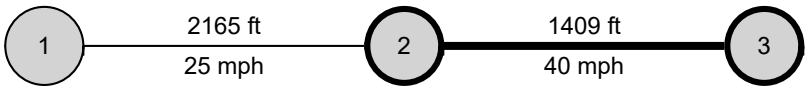
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	Maddona Rd/Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	90	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	43.76			36.71		
2	Running Time, s	25.11			29.72		
2	Running Speed, mph	38.27			32.32		
2	Through Delay, s/veh	28.02			16.06		
2	Travel Time, s	53.12			45.79		
2	Travel Speed, mph	18.08			20.98		
2	Stop Rate, stops/veh	0.62			0.76		
2	Spatial Stop Rate, stops/mi	2.32			2.86		
2	Through vol/cap Ratio	0.42			0.68		
2	Percent of Base FFS	41.33			57.16		
2	Level of Service	D			C		
2	Auto Traveler Perception Score	2.50			2.59		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.62		D	3.19		C
2	Bicycle Segment LOS Score / LOS	2.52		B	2.42		B
2	Transit Segment LOS Score / LOS	4.04		D	3.37		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	110.32	117.47
Facility Travel Speed, mph	22.09	20.74
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	56.44	52.98
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.42	2.48

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.03	C	3.93	F
Bicycle Facility LOS Score / LOS	2.97	C	2.47	C
Transit Facility LOS Score / LOS	3.23	C	3.37	C

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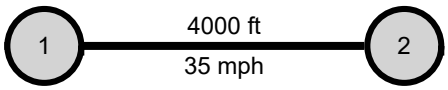
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	12. Froom Ranch Way from LOV	Analysis Year	2019	System Cycle Length, s	120
Intersections	Froom Ranch Way/Dalidio Drive	Froom Ranch Way/LOVR		Analysis Period	1> 7:00
Project Description	Froom Ranch TIS				



Basic Segment Information (Froom Ranch Way between LOVR and Dalido Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	35	30	1	1	4000	4000	120	100	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	41.08			38.74		
1	Running Time, s	68.06			73.01		
1	Running Speed, mph	40.07			37.35		
1	Through Delay, s/veh	29.89			8.87		
1	Travel Time, s	97.95			81.89		
1	Travel Speed, mph	27.84			33.30		
1	Stop Rate, stops/veh	0.84			0.33		
1	Spatial Stop Rate, stops/mi	1.11			0.43		
1	Through vol/cap Ratio	0.39			0.47		
1	Percent of Base FFS	67.77			85.98		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.31			2.20		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.06		C	3.23		C
1	Bicycle Segment LOS Score / LOS	1.25		A	0.85		A
1	Transit Segment LOS Score / LOS	1.05		A	0.48		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	97.95	81.89
Facility Travel Speed, mph	27.84	33.30
Facility Base Free Flow Speed, mph	41.08	38.74
Facility Percent of Base FFS	67.77	85.98
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.31	2.20

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.06	C	3.23	C
Bicycle Facility LOS Score / LOS	1.25	A	0.85	A
Transit Facility LOS Score / LOS	1.05	A	0.48	A

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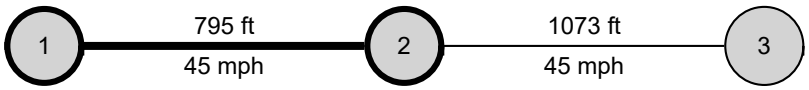
Multimodal Roadway Segment Analysis Sheets - Near Term Plus Project Scenario 1 Conditions AM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.44			14.25		
1	Running Speed, mph	37.54			38.04		
1	Through Delay, s/veh	4.94			3.32		
1	Travel Time, s	19.38			17.57		
1	Travel Speed, mph	27.97			30.85		
1	Stop Rate, stops/veh	0.34			0.13		
1	Spatial Stop Rate, stops/mi	2.24			0.87		
1	Through vol/cap Ratio	0.47			0.21		
1	Percent of Base FFS	62.18			68.59		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.49			2.48		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.71		D	3.08		C
1	Bicycle Segment LOS Score / LOS	2.12		B	1.85		A
1	Transit Segment LOS Score / LOS	3.63		D	2.62		B

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	40.08	44.13
Facility Travel Speed, mph	31.77	28.86
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	69.89	63.50
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.30	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.68	D	3.31	C
Bicycle Facility LOS Score / LOS	2.04	B	1.61	A
Transit Facility LOS Score / LOS	2.92	C	1.76	A

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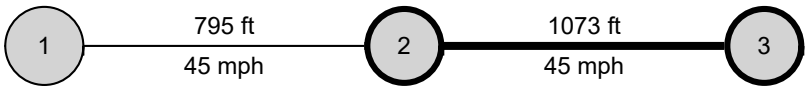
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.36			18.11		
2	Running Speed, mph	39.84			40.39		
2	Through Delay, s/veh	2.34			8.45		
2	Travel Time, s	20.71			26.56		
2	Travel Speed, mph	35.33			27.54		
2	Stop Rate, stops/veh	0.06			0.48		
2	Spatial Stop Rate, stops/mi	0.31			2.34		
2	Through vol/cap Ratio	0.44			0.31		
2	Percent of Base FFS	77.12			60.13		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.19			2.73		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.66		D	3.48		C
2	Bicycle Segment LOS Score / LOS	1.98		A	1.44		A
2	Transit Segment LOS Score / LOS	2.39		B	1.12		A

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	40.08	44.13
Facility Travel Speed, mph	31.77	28.86
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	69.89	63.50
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.30	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.68	D	3.31	C
Bicycle Facility LOS Score / LOS	2.04	B	1.61	A
Transit Facility LOS Score / LOS	2.92	C	1.76	A

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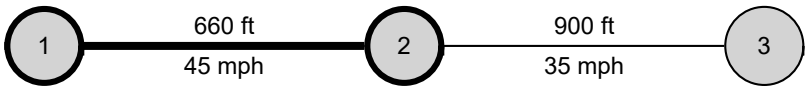
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.79			12.56		
1	Running Speed, mph	35.19			35.82		
1	Through Delay, s/veh	23.27			2.11		
1	Travel Time, s	36.05			14.67		
1	Travel Speed, mph	12.48			30.67		
1	Stop Rate, stops/veh	0.63			0.08		
1	Spatial Stop Rate, stops/mi	5.07			0.61		
1	Through vol/cap Ratio	0.74			0.19		
1	Percent of Base FFS	27.34			67.29		
1	Level of Service	F			B		
1	Auto Traveler Perception Score	2.98			2.23		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.62		D	2.91		C
1	Bicycle Segment LOS Score / LOS	2.41		B	1.47		A
1	Transit Segment LOS Score / LOS	2.60		B	2.80		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	92.19	44.82
Facility Travel Speed, mph	11.54	23.73
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	27.05	51.96
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	2.99	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.42	C	2.80	C
Bicycle Facility LOS Score / LOS	2.35	C	1.56	A
Transit Facility LOS Score / LOS	2.53	C	2.78	C

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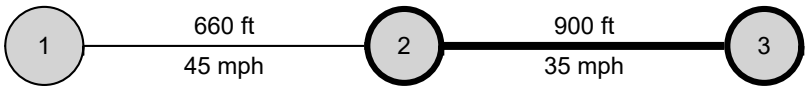
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.25			15.61		
2	Running Speed, mph	31.88			39.31		
2	Through Delay, s/veh	36.89			14.53		
2	Travel Time, s	56.14			30.14		
2	Travel Speed, mph	10.93			20.36		
2	Stop Rate, stops/veh	0.89			0.42		
2	Spatial Stop Rate, stops/mi	5.22			2.48		
2	Through vol/cap Ratio	0.88			0.29		
2	Percent of Base FFS	26.87			44.50		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	3.01			2.52		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.27		C	2.72		B
2	Bicycle Segment LOS Score / LOS	2.30		B	1.62		A
2	Transit Segment LOS Score / LOS	2.48		B	2.77		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	92.19	44.82
Facility Travel Speed, mph	11.54	23.73
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	27.05	51.96
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	2.99	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.42	C	2.80	C
Bicycle Facility LOS Score / LOS	2.35	C	1.56	A
Transit Facility LOS Score / LOS	2.53	C	2.78	C

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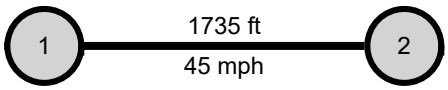
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	115	107	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.82			44.83		
1	Running Time, s	27.65			27.54		
1	Running Speed, mph	42.79			42.96		
1	Through Delay, s/veh	16.35			36.13		
1	Travel Time, s	44.00			63.67		
1	Travel Speed, mph	26.89			18.58		
1	Stop Rate, stops/veh	0.66			0.81		
1	Spatial Stop Rate, stops/mi	2.02			2.47		
1	Through vol/cap Ratio	0.48			0.53		
1	Percent of Base FFS	59.99			41.45		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.45			2.52		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.28		C	3.22		F
1	Bicycle Segment LOS Score / LOS	2.61		B	1.49		A
1	Transit Segment LOS Score / LOS	3.54		D	2.06		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	44.00	63.67
Facility Travel Speed, mph	26.89	18.58
Facility Base Free Flow Speed, mph	44.82	44.83
Facility Percent of Base FFS	59.99	41.45
Facility Level of Service	C	D
Facility Auto Traveler Perception Score	2.45	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.28	C	3.22	F
Bicycle Facility LOS Score / LOS	2.61	C	1.49	A
Transit Facility LOS Score / LOS	3.54	D	2.06	B

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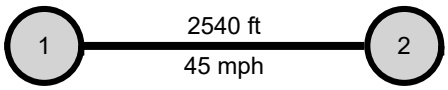
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	39.98			39.85		
1	Running Speed, mph	43.32			43.46		
1	Through Delay, s/veh	6.70			14.92		
1	Travel Time, s	46.68			54.78		
1	Travel Speed, mph	37.10			31.62		
1	Stop Rate, stops/veh	0.40			0.60		
1	Spatial Stop Rate, stops/mi	0.84			1.24		
1	Through vol/cap Ratio	0.39			0.41		
1	Percent of Base FFS	82.82			69.91		
1	Level of Service	A			B		
1	Auto Traveler Perception Score	2.26			2.33		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.31		C	3.38		C
1	Bicycle Segment LOS Score / LOS	2.44		B	1.86		A
1	Transit Segment LOS Score / LOS	3.00		C	3.26		C

Facility Output Data	Southbound		Northbound	
Facility Travel Time, s	46.68		54.78	
Facility Travel Speed, mph	37.10		31.62	
Facility Base Free Flow Speed, mph	44.80		45.22	
Facility Percent of Base FFS	82.82		69.91	
Facility Level of Service	A		B	
Facility Auto Traveler Perception Score	2.26		2.33	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.31	C	3.38	C
Bicycle Facility LOS Score / LOS	2.44	C	1.86	A
Transit Facility LOS Score / LOS	3.00	C	3.26	C

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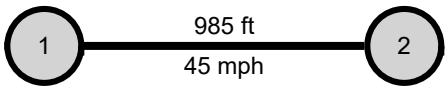
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	35	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph		45.33			40.66	
1	Running Time, s		16.96			20.05	
1	Running Speed, mph		39.60			33.50	
1	Through Delay, s/veh		13.76			13.66	
1	Travel Time, s		30.72			33.71	
1	Travel Speed, mph		22.43			20.13	
1	Stop Rate, stops/veh		0.43			0.57	
1	Spatial Stop Rate, stops/mi		2.29			3.04	
1	Through vol/cap Ratio		0.52			0.35	
1	Percent of Base FFS		49.48			49.51	
1	Level of Service		D			D	
1	Auto Traveler Perception Score		2.72			2.62	
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.64		D	3.31		C
1	Bicycle Segment LOS Score / LOS	2.81		C	2.52		B
1	Transit Segment LOS Score / LOS	4.82		E	4.82		E

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	30.72	33.71
Facility Travel Speed, mph	21.86	19.93
Facility Base Free Flow Speed, mph	45.33	40.66
Facility Percent of Base FFS	48.23	49.01
Facility Level of Service	D	D
Facility Auto Traveler Perception Score	2.72	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.64	D	3.31	C
Bicycle Facility LOS Score / LOS	2.81	C	2.52	C
Transit Facility LOS Score / LOS	4.82	E	4.82	E

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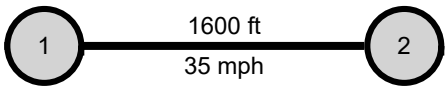
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	35	1	2	1600	1600	72	60	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	40.64			41.19		
1	Running Time, s	31.60			30.14		
1	Running Speed, mph	34.52			36.20		
1	Through Delay, s/veh	20.11			13.00		
1	Travel Time, s	51.72			43.14		
1	Travel Speed, mph	21.09			25.29		
1	Stop Rate, stops/veh	0.70			0.55		
1	Spatial Stop Rate, stops/mi	2.32			1.83		
1	Through vol/cap Ratio	0.66			0.68		
1	Percent of Base FFS	51.90			61.40		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.73			2.64		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.25		D	3.75		D
1	Bicycle Segment LOS Score / LOS	2.38		B	1.86		A
1	Transit Segment LOS Score / LOS	3.92		D	3.70		D

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	51.72	43.14
Facility Travel Speed, mph	21.09	25.29
Facility Base Free Flow Speed, mph	40.64	41.19
Facility Percent of Base FFS	51.90	61.40
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.73	2.64

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.25	D	3.75	D
Bicycle Facility LOS Score / LOS	2.38	C	1.86	A
Transit Facility LOS Score / LOS	3.92	D	3.70	D

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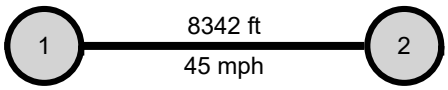
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	126.65			126.92		
1	Running Speed, mph	44.91			44.81		
1	Through Delay, s/veh	1.04			12.76		
1	Travel Time, s	127.69			139.68		
1	Travel Speed, mph	44.54			40.72		
1	Stop Rate, stops/veh	0.36			0.56		
1	Spatial Stop Rate, stops/mi	0.23			0.36		
1	Through vol/cap Ratio	0.31			0.40		
1	Percent of Base FFS	97.43			89.06		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.55		A	1.60		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	127.69	139.68
Facility Travel Speed, mph	44.54	40.72
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	97.43	89.06
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.40

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.55	A	1.60	A
Transit Facility LOS Score / LOS				

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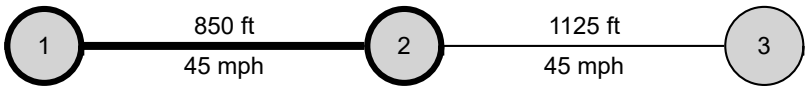
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	110	90	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.59			44.80		
1	Running Time, s	15.33			15.38		
1	Running Speed, mph	37.81			37.68		
1	Through Delay, s/veh	11.96			19.35		
1	Travel Time, s	27.29			34.73		
1	Travel Speed, mph	21.24			16.69		
1	Stop Rate, stops/veh	0.42			0.64		
1	Spatial Stop Rate, stops/mi	2.63			4.00		
1	Through vol/cap Ratio	0.70			0.48		
1	Percent of Base FFS	46.59			37.25		
1	Level of Service	D			E		
1	Auto Traveler Perception Score	2.78			2.79		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.16		C	3.89		D
1	Bicycle Segment LOS Score / LOS	2.45		B	2.08		B
1	Transit Segment LOS Score / LOS	3.21		C	3.19		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	75.58	56.61
Facility Travel Speed, mph	17.82	23.79
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	39.00	52.48
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.67	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.90	C	3.35	C
Bicycle Facility LOS Score / LOS	2.91	C	2.59	C
Transit Facility LOS Score / LOS	3.27	C	4.15	D

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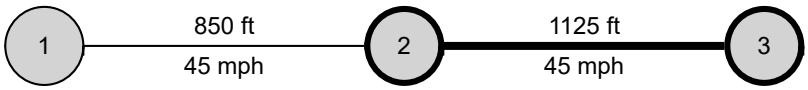
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	95	115	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.76			45.74		
2	Running Time, s	19.07			18.80		
2	Running Speed, mph	40.22			40.80		
2	Through Delay, s/veh	29.22			3.07		
2	Travel Time, s	48.29			21.88		
2	Travel Speed, mph	15.88			35.06		
2	Stop Rate, stops/veh	0.62			0.13		
2	Spatial Stop Rate, stops/mi	2.89			0.60		
2	Through vol/cap Ratio	0.45			0.26		
2	Percent of Base FFS	34.72			76.66		
2	Level of Service	E			B		
2	Auto Traveler Perception Score	2.59			2.23		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.70		B	2.94		C
2	Bicycle Segment LOS Score / LOS	3.26		C	2.97		C
2	Transit Segment LOS Score / LOS	3.31		C	4.88		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	75.58	56.61
Facility Travel Speed, mph	17.82	23.79
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	39.00	52.48
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.67	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.90	C	3.35	C
Bicycle Facility LOS Score / LOS	2.91	C	2.59	C
Transit Facility LOS Score / LOS	3.27	C	4.15	D

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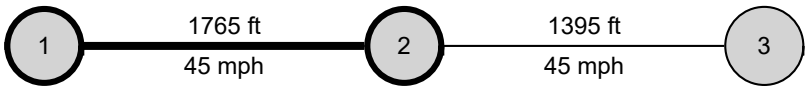
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	85	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.05			45.07		
1	Running Time, s	28.23			28.27		
1	Running Speed, mph	42.64			42.56		
1	Through Delay, s/veh	8.16			14.72		
1	Travel Time, s	36.39			42.99		
1	Travel Speed, mph	33.07			27.99		
1	Stop Rate, stops/veh	0.52			0.43		
1	Spatial Stop Rate, stops/mi	1.56			1.28		
1	Through vol/cap Ratio	0.52			0.26		
1	Percent of Base FFS	73.41			62.10		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.60			2.55		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.37		B	3.50		C
1	Bicycle Segment LOS Score / LOS	2.14		B	2.59		B
1	Transit Segment LOS Score / LOS	3.24		C	3.29		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	82.75	69.13
Facility Travel Speed, mph	26.04	31.17
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	57.59	68.93
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.59	2.45

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.63	C	3.53	F
Bicycle Facility LOS Score / LOS	2.09	B	2.50	C
Transit Facility LOS Score / LOS	3.33	C	3.59	D

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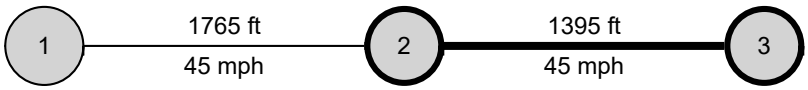
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	75	75	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.42			45.40		
2	Running Time, s	22.67			22.80		
2	Running Speed, mph	41.95			41.71		
2	Through Delay, s/veh	23.69			3.34		
2	Travel Time, s	46.36			26.14		
2	Travel Speed, mph	20.52			36.38		
2	Stop Rate, stops/veh	0.74			0.33		
2	Spatial Stop Rate, stops/mi	2.82			1.24		
2	Through vol/cap Ratio	0.51			0.38		
2	Percent of Base FFS	45.18			80.15		
2	Level of Service	D			A		
2	Auto Traveler Perception Score	2.58			2.33		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.96		C	3.57		F
2	Bicycle Segment LOS Score / LOS	2.03		B	2.38		B
2	Transit Segment LOS Score / LOS	3.44		C	3.98		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	82.75	69.13
Facility Travel Speed, mph	26.04	31.17
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	57.59	68.93
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.59	2.45

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.63	C	3.53	F
Bicycle Facility LOS Score / LOS	2.09	B	2.50	C
Transit Facility LOS Score / LOS	3.33	C	3.59	D

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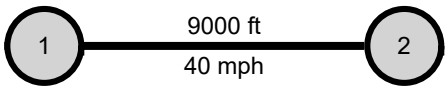
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	60	70	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	42.40			43.15		
1	Running Time, s	156.02			146.53		
1	Running Speed, mph	39.33			41.88		
1	Through Delay, s/veh	25.06			32.37		
1	Travel Time, s	181.08			178.90		
1	Travel Speed, mph	33.89			34.30		
1	Stop Rate, stops/veh	0.54			0.62		
1	Spatial Stop Rate, stops/mi	0.32			0.36		
1	Through vol/cap Ratio	0.03			0.36		
1	Percent of Base FFS	79.93			79.48		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.19			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.90		C	2.74		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound		Eastbound	
Facility Travel Time, s	181.08		178.90	
Facility Travel Speed, mph	33.89		34.30	
Facility Base Free Flow Speed, mph	42.40		43.15	
Facility Percent of Base FFS	79.93		79.48	
Facility Level of Service	B		B	
Facility Auto Traveler Perception Score	2.19		2.40	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.90	C	2.74	C
Transit Facility LOS Score / LOS				

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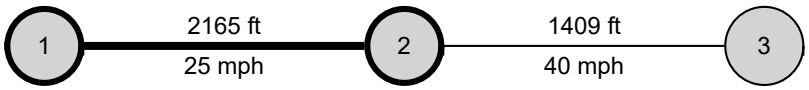
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	LOVR/Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	110	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	36.52			40.73		
1	Running Time, s	43.39			38.26		
1	Running Speed, mph	34.02			38.59		
1	Through Delay, s/veh	38.27			30.00		
1	Travel Time, s	81.67			68.26		
1	Travel Speed, mph	18.08			21.63		
1	Stop Rate, stops/veh	0.76			0.79		
1	Spatial Stop Rate, stops/mi	1.86			1.92		
1	Through vol/cap Ratio	0.76			0.07		
1	Percent of Base FFS	49.49			53.10		
1	Level of Service	D			C		
1	Auto Traveler Perception Score	2.42			2.43		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.76		F	2.90		F
1	Bicycle Segment LOS Score / LOS	3.45		C	1.88		A
1	Transit Segment LOS Score / LOS	3.50		C	2.95		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	134.49	123.59
Facility Travel Speed, mph	18.12	19.72
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	46.55	50.77
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.45	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.52	F	3.15	F
Bicycle Facility LOS Score / LOS	3.15	C	1.96	A
Transit Facility LOS Score / LOS	3.59	D	3.28	C

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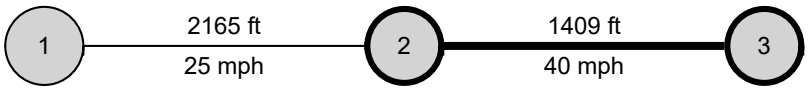
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	76	70	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	43.30			36.25		
2	Running Time, s	25.85			29.51		
2	Running Speed, mph	37.17			32.55		
2	Through Delay, s/veh	26.97			25.82		
2	Travel Time, s	52.82			55.33		
2	Travel Speed, mph	18.19			17.36		
2	Stop Rate, stops/veh	0.62			0.54		
2	Spatial Stop Rate, stops/mi	2.31			2.03		
2	Through vol/cap Ratio	0.59			0.06		
2	Percent of Base FFS	42.01			47.90		
2	Level of Service	D			D		
2	Auto Traveler Perception Score	2.50			2.45		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	4.16		D	3.52		D
2	Bicycle Segment LOS Score / LOS	2.69		B	2.08		B
2	Transit Segment LOS Score / LOS	3.74		D	3.80		D

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	134.49	123.59
Facility Travel Speed, mph	18.12	19.72
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	46.55	50.77
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.45	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.52	F	3.15	F
Bicycle Facility LOS Score / LOS	3.15	C	1.96	A
Transit Facility LOS Score / LOS	3.59	D	3.28	C

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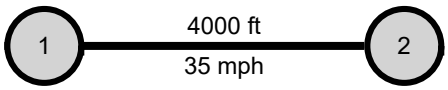
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	12. Froom Ranch from LOVR to	Analysis Year	2019	System Cycle Length, s	120
Intersections	Froom Ranch Way/Dalidio Drive	Froom Ranch Way/LOVR		Analysis Period	1> 7:00
Project Description	Froom Ranch TIS				



Basic Segment Information (Froom Ranch Way between LOVR and Dalido Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	35	35	1	1	4000	4000	120	100	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	41.08			41.09		
1	Running Time, s	67.81			68.12		
1	Running Speed, mph	40.22			40.03		
1	Through Delay, s/veh	18.95			4.83		
1	Travel Time, s	86.76			72.95		
1	Travel Speed, mph	31.44			37.38		
1	Stop Rate, stops/veh	0.83			0.20		
1	Spatial Stop Rate, stops/mi	1.10			0.26		
1	Through vol/cap Ratio	0.28			0.00		
1	Percent of Base FFS	76.51			90.99		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.30			2.18		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.81		C	2.24		B
1	Bicycle Segment LOS Score / LOS	1.12		A	0.69		A
1	Transit Segment LOS Score / LOS	0.77		A	0.42		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	86.76	72.95
Facility Travel Speed, mph	31.44	37.38
Facility Base Free Flow Speed, mph	41.08	41.09
Facility Percent of Base FFS	76.51	90.99
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.30	2.18

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.81	C	2.24	B
Bicycle Facility LOS Score / LOS	1.12	A	0.69	A
Transit Facility LOS Score / LOS	0.77	A	0.42	A

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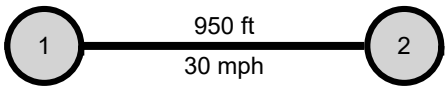
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	2
Analyst		Analysis Date	1/14/2019	Number of Segments	1
Jurisdiction		Time Period		Number of Iterations	15
File Name	13. Collector A from LOVR to Co	Analysis Year	2019	System Cycle Length, s	120
Intersections	LOVR/Collector A	Collector A/Collector B		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan TIS				



Basic Segment Information (Commercial Collector A)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	30	30	1	1	950	950	50	50	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	39.37			39.37		
1	Running Time, s	19.64			19.67		
1	Running Speed, mph	32.98			32.93		
1	Through Delay, s/veh	1.77			0.00		
1	Travel Time, s	21.41			19.67		
1	Travel Speed, mph	30.25			32.93		
1	Stop Rate, stops/veh	0.09			0.00		
1	Spatial Stop Rate, stops/mi	0.50			0.00		
1	Through vol/cap Ratio	0.08			0.00		
1	Percent of Base FFS	76.83			83.65		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.42			2.34		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.14		B	2.78		C
1	Bicycle Segment LOS Score / LOS	0.91		A	0.48		A
1	Transit Segment LOS Score / LOS	0.64		A	0.65		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	21.41	19.67
Facility Travel Speed, mph	30.25	32.93
Facility Base Free Flow Speed, mph	39.37	39.37
Facility Percent of Base FFS	76.83	83.65
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.42	2.34

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.14	B	2.78	C
Bicycle Facility LOS Score / LOS	0.91	A	0.48	A
Transit Facility LOS Score / LOS	0.64	A	0.65	A

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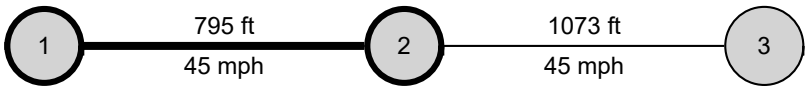
Multimodal Roadway Segment Analysis Sheets - Near Term Plus Project Scenario 1 Conditions PM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.40			14.58		
1	Running Speed, mph	37.64			37.18		
1	Through Delay, s/veh	3.19			3.30		
1	Travel Time, s	17.59			17.88		
1	Travel Speed, mph	30.82			30.31		
1	Stop Rate, stops/veh	0.26			0.12		
1	Spatial Stop Rate, stops/mi	1.71			0.78		
1	Through vol/cap Ratio	0.41			0.45		
1	Percent of Base FFS	68.49			67.40		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.40			2.47		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.61		D	3.98		D
1	Bicycle Segment LOS Score / LOS	2.10		B	2.19		B
1	Transit Segment LOS Score / LOS	3.62		D	2.77		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	38.30	46.12
Facility Travel Speed, mph	33.26	27.62
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	73.16	60.77
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.28	2.61

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.56	D	4.13	D
Bicycle Facility LOS Score / LOS	2.70	C	1.89	A
Transit Facility LOS Score / LOS	2.89	C	1.97	A

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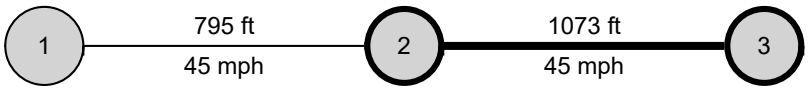
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.25			18.50		
2	Running Speed, mph	40.08			39.54		
2	Through Delay, s/veh	2.45			9.74		
2	Travel Time, s	20.71			28.24		
2	Travel Speed, mph	35.33			25.91		
2	Stop Rate, stops/veh	0.08			0.48		
2	Spatial Stop Rate, stops/mi	0.37			2.34		
2	Through vol/cap Ratio	0.40			0.72		
2	Percent of Base FFS	77.12			56.57		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.19			2.73		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.52		D	4.25		D
2	Bicycle Segment LOS Score / LOS	3.15		C	1.67		A
2	Transit Segment LOS Score / LOS	2.35		B	1.37		A

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	38.30	46.12
Facility Travel Speed, mph	33.26	27.62
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	73.16	60.77
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.28	2.61

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.56	D	4.13	D
Bicycle Facility LOS Score / LOS	2.70	C	1.89	A
Transit Facility LOS Score / LOS	2.89	C	1.97	A

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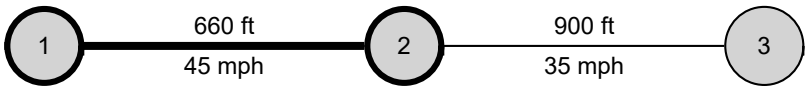
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.73			12.69		
1	Running Speed, mph	35.35			35.46		
1	Through Delay, s/veh	32.04			2.91		
1	Travel Time, s	44.77			15.60		
1	Travel Speed, mph	10.05			28.85		
1	Stop Rate, stops/veh	0.82			0.10		
1	Spatial Stop Rate, stops/mi	6.53			0.83		
1	Through vol/cap Ratio	0.91			0.35		
1	Percent of Base FFS	22.02			63.30		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	3.26			2.26		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.52		D	3.39		C
1	Bicycle Segment LOS Score / LOS	2.35		B	1.71		A
1	Transit Segment LOS Score / LOS	2.88		C	2.90		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	110.45	47.85
Facility Travel Speed, mph	9.63	22.23
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	22.58	48.67
Facility Level of Service	F	D
Facility Auto Traveler Perception Score	3.15	2.54

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.27	C	3.20	C
Bicycle Facility LOS Score / LOS	2.27	C	1.81	A
Transit Facility LOS Score / LOS	2.62	C	2.90	C

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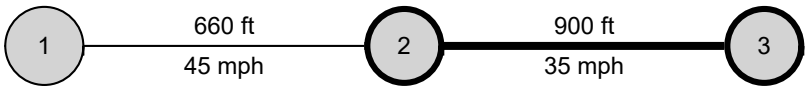
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.06			15.81		
2	Running Speed, mph	32.19			38.80		
2	Through Delay, s/veh	46.61			16.43		
2	Travel Time, s	65.68			32.25		
2	Travel Speed, mph	9.34			19.03		
2	Stop Rate, stops/veh	0.95			0.69		
2	Spatial Stop Rate, stops/mi	5.58			4.08		
2	Through vol/cap Ratio	0.93			0.64		
2	Percent of Base FFS	22.97			41.59		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	3.08			2.80		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.08		C	3.06		C
2	Bicycle Segment LOS Score / LOS	2.21		B	1.88		A
2	Transit Segment LOS Score / LOS	2.43		B	2.90		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	110.45	47.85
Facility Travel Speed, mph	9.63	22.23
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	22.58	48.67
Facility Level of Service	F	D
Facility Auto Traveler Perception Score	3.15	2.54

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.27	C	3.20	C
Bicycle Facility LOS Score / LOS	2.27	C	1.81	A
Transit Facility LOS Score / LOS	2.62	C	2.90	C

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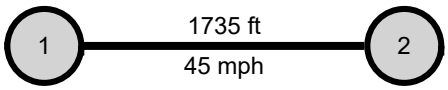
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 4:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	107	115	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.83			44.82		
1	Running Time, s	27.71			27.91		
1	Running Speed, mph	42.70			42.38		
1	Through Delay, s/veh	37.98			43.41		
1	Travel Time, s	65.68			71.32		
1	Travel Speed, mph	18.01			16.59		
1	Stop Rate, stops/veh	0.80			0.89		
1	Spatial Stop Rate, stops/mi	2.42			2.72		
1	Through vol/cap Ratio	0.67			0.89		
1	Percent of Base FFS	40.18			37.01		
1	Level of Service	D			E		
1	Auto Traveler Perception Score	2.51			2.56		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.40		C	3.63		D
1	Bicycle Segment LOS Score / LOS	2.61		B	1.83		A
1	Transit Segment LOS Score / LOS	3.80		D	2.15		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	65.68	71.32
Facility Travel Speed, mph	18.01	16.59
Facility Base Free Flow Speed, mph	44.83	44.82
Facility Percent of Base FFS	40.18	37.01
Facility Level of Service	D	E
Facility Auto Traveler Perception Score	2.51	2.56

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.40	C	3.63	D
Bicycle Facility LOS Score / LOS	2.61	C	1.83	A
Transit Facility LOS Score / LOS	3.80	D	2.15	B

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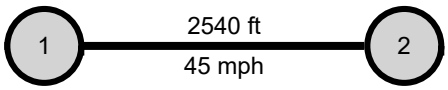
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.62			40.24		
1	Running Speed, mph	42.64			43.03		
1	Through Delay, s/veh	10.66			28.79		
1	Travel Time, s	51.28			69.04		
1	Travel Speed, mph	33.77			25.09		
1	Stop Rate, stops/veh	0.56			0.73		
1	Spatial Stop Rate, stops/mi	1.16			1.52		
1	Through vol/cap Ratio	0.68			0.64		
1	Percent of Base FFS	75.38			55.47		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.31			2.37		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.73		D	3.41		C
1	Bicycle Segment LOS Score / LOS	2.67		B	2.02		B
1	Transit Segment LOS Score / LOS	3.16		C	3.44		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	51.28	69.04
Facility Travel Speed, mph	33.77	25.09
Facility Base Free Flow Speed, mph	44.80	45.22
Facility Percent of Base FFS	75.38	55.47
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.37

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.73	D	3.41	C
Bicycle Facility LOS Score / LOS	2.67	C	2.02	B
Transit Facility LOS Score / LOS	3.16	C	3.44	C

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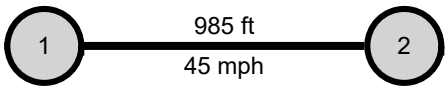
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.33			45.36		
1	Running Time, s	16.97			17.06		
1	Running Speed, mph	39.57			39.36		
1	Through Delay, s/veh	20.52			10.83		
1	Travel Time, s	37.49			27.90		
1	Travel Speed, mph	17.91			24.07		
1	Stop Rate, stops/veh	0.66			0.39		
1	Spatial Stop Rate, stops/mi	3.54			2.08		
1	Through vol/cap Ratio	0.42			0.56		
1	Percent of Base FFS	39.52			53.08		
1	Level of Service	E			C		
1	Auto Traveler Perception Score	2.95			2.46		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.51		D	3.70		D
1	Bicycle Segment LOS Score / LOS	2.79		C	2.90		C
1	Transit Segment LOS Score / LOS	4.95		E	4.81		E

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	37.49	27.90
Facility Travel Speed, mph	17.91	24.07
Facility Base Free Flow Speed, mph	45.33	45.36
Facility Percent of Base FFS	39.52	53.08
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.95	2.46

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.51	D	3.70	D
Bicycle Facility LOS Score / LOS	2.79	C	2.90	C
Transit Facility LOS Score / LOS	4.95	E	4.81	E

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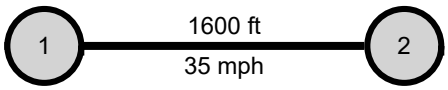
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	45	1	2	1600	1600	105	60	540	540	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	40.78			45.77		
1	Running Time, s	30.73			25.92		
1	Running Speed, mph	35.50			42.09		
1	Through Delay, s/veh	18.62			8.97		
1	Travel Time, s	49.34			34.89		
1	Travel Speed, mph	22.11			31.27		
1	Stop Rate, stops/veh	0.70			0.32		
1	Spatial Stop Rate, stops/mi	2.31			1.06		
1	Through vol/cap Ratio	0.58			0.40		
1	Percent of Base FFS	54.22			68.31		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.73			2.51		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.78		D	3.38		C
1	Bicycle Segment LOS Score / LOS	2.39		B	1.96		A
1	Transit Segment LOS Score / LOS	3.46		C	3.35		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	49.34	34.89
Facility Travel Speed, mph	22.11	31.27
Facility Base Free Flow Speed, mph	40.78	45.77
Facility Percent of Base FFS	54.22	68.31
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.73	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.78	D	3.38	C
Bicycle Facility LOS Score / LOS	2.39	C	1.96	A
Transit Facility LOS Score / LOS	3.46	C	3.35	C

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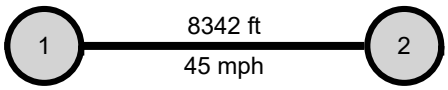
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	128.70			126.22		
1	Running Speed, mph	44.19			45.06		
1	Through Delay, s/veh	1.36			8.88		
1	Travel Time, s	130.06			135.10		
1	Travel Speed, mph	43.73			42.10		
1	Stop Rate, stops/veh	0.36			0.39		
1	Spatial Stop Rate, stops/mi	0.23			0.25		
1	Through vol/cap Ratio	0.58			0.22		
1	Percent of Base FFS	95.65			92.07		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.38		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.78		A	1.48		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	130.06	135.10
Facility Travel Speed, mph	43.73	42.10
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	95.65	92.07
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.38

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.78	A	1.48	A
Transit Facility LOS Score / LOS				

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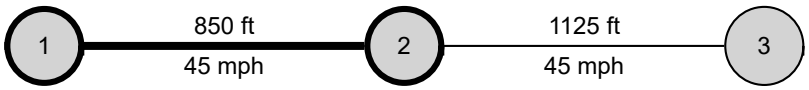
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	100	95	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.60			44.78		
1	Running Time, s	15.12			16.62		
1	Running Speed, mph	38.33			34.86		
1	Through Delay, s/veh	18.05			20.94		
1	Travel Time, s	33.17			37.56		
1	Travel Speed, mph	17.47			15.43		
1	Stop Rate, stops/veh	0.50			0.60		
1	Spatial Stop Rate, stops/mi	3.11			3.73		
1	Through vol/cap Ratio	0.58			0.75		
1	Percent of Base FFS	38.32			34.45		
1	Level of Service	E			E		
1	Auto Traveler Perception Score	2.87			2.74		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.11		C	4.65		E
1	Bicycle Segment LOS Score / LOS	2.33		B	2.39		B
1	Transit Segment LOS Score / LOS	2.50		B	5.41		F

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	97.08	68.06
Facility Travel Speed, mph	13.87	19.79
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	30.36	43.64
Facility Level of Service	E	D
Facility Auto Traveler Perception Score	2.77	2.54

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.04	C	3.93	D
Bicycle Facility LOS Score / LOS	2.94	C	2.93	C
Transit Facility LOS Score / LOS	3.06	C	3.91	D

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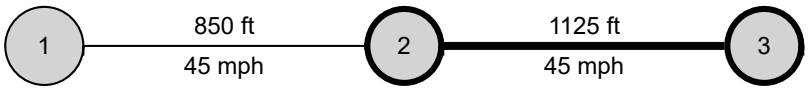
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	85	75	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.76			45.77		
2	Running Time, s	18.99			19.14		
2	Running Speed, mph	40.39			40.07		
2	Through Delay, s/veh	44.92			11.35		
2	Travel Time, s	63.91			30.49		
2	Travel Speed, mph	12.00			25.15		
2	Stop Rate, stops/veh	0.74			0.37		
2	Spatial Stop Rate, stops/mi	3.47			1.72		
2	Through vol/cap Ratio	0.67			0.60		
2	Percent of Base FFS	26.23			54.96		
2	Level of Service	F			C		
2	Auto Traveler Perception Score	2.69			2.40		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.98		C	3.38		C
2	Bicycle Segment LOS Score / LOS	3.40		C	3.34		C
2	Transit Segment LOS Score / LOS	3.48		C	2.78		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	97.08	68.06
Facility Travel Speed, mph	13.87	19.79
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	30.36	43.64
Facility Level of Service	E	D
Facility Auto Traveler Perception Score	2.77	2.54

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.04	C	3.93	D
Bicycle Facility LOS Score / LOS	2.94	C	2.93	C
Transit Facility LOS Score / LOS	3.06	C	3.91	D

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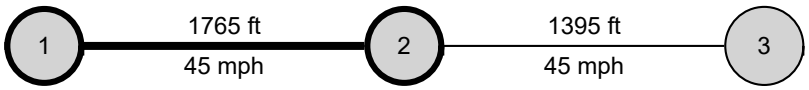
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	115	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.05			45.05		
1	Running Time, s	28.67			28.51		
1	Running Speed, mph	41.97			42.21		
1	Through Delay, s/veh	16.48			28.72		
1	Travel Time, s	45.15			57.23		
1	Travel Speed, mph	26.65			21.03		
1	Stop Rate, stops/veh	0.60			0.60		
1	Spatial Stop Rate, stops/mi	1.80			1.78		
1	Through vol/cap Ratio	0.89			0.52		
1	Percent of Base FFS	59.16			46.68		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.64			2.64		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.17		C	3.85		D
1	Bicycle Segment LOS Score / LOS	2.54		B	2.96		C
1	Transit Segment LOS Score / LOS	3.51		D	3.79		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	83.99	86.08
Facility Travel Speed, mph	25.65	25.03
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	56.71	55.34
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.56	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.33	C	4.29	F
Bicycle Facility LOS Score / LOS	2.41	C	2.73	C
Transit Facility LOS Score / LOS	4.21	D	4.02	D

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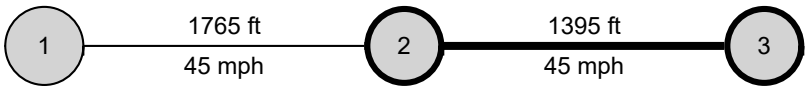
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.48			45.46		
2	Running Time, s	23.11			23.02		
2	Running Speed, mph	41.16			41.32		
2	Through Delay, s/veh	15.73			5.84		
2	Travel Time, s	38.83			28.85		
2	Travel Speed, mph	24.49			32.96		
2	Stop Rate, stops/veh	0.56			0.39		
2	Spatial Stop Rate, stops/mi	2.11			1.49		
2	Through vol/cap Ratio	0.56			0.47		
2	Percent of Base FFS	53.86			72.51		
2	Level of Service	C			B		
2	Auto Traveler Perception Score	2.46			2.37		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.52		D	4.85		F
2	Bicycle Segment LOS Score / LOS	2.25		B	2.45		B
2	Transit Segment LOS Score / LOS	5.08		F	4.32		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	83.99	86.08
Facility Travel Speed, mph	25.65	25.03
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	56.71	55.34
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.56	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.33	C	4.29	F
Bicycle Facility LOS Score / LOS	2.41	C	2.73	C
Transit Facility LOS Score / LOS	4.21	D	4.02	D

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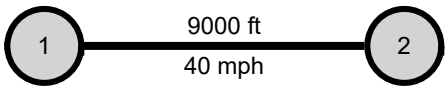
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	135	90	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	42.38			43.15		
1	Running Time, s	155.28			146.21		
1	Running Speed, mph	39.52			41.97		
1	Through Delay, s/veh	26.53			33.44		
1	Travel Time, s	181.81			179.65		
1	Travel Speed, mph	33.75			34.16		
1	Stop Rate, stops/veh	0.59			0.74		
1	Spatial Stop Rate, stops/mi	0.34			0.43		
1	Through vol/cap Ratio	0.03			0.43		
1	Percent of Base FFS	79.64			79.15		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.19			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.99		C	2.71		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	181.81	179.65
Facility Travel Speed, mph	33.75	34.16
Facility Base Free Flow Speed, mph	42.38	43.15
Facility Percent of Base FFS	79.64	79.15
Facility Level of Service	B	B
Facility Auto Traveler Perception Score	2.19	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.99	C	2.71	C
Transit Facility LOS Score / LOS				

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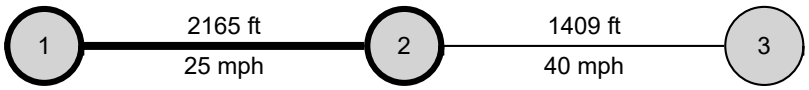
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	LOVR/Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	115	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	36.62			40.93		
1	Running Time, s	42.66			40.91		
1	Running Speed, mph	34.61			36.08		
1	Through Delay, s/veh	14.72			30.92		
1	Travel Time, s	57.38			71.84		
1	Travel Speed, mph	25.73			20.55		
1	Stop Rate, stops/veh	0.63			0.72		
1	Spatial Stop Rate, stops/mi	1.53			1.75		
1	Through vol/cap Ratio	0.42			0.37		
1	Percent of Base FFS	70.25			50.21		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.37			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.66		B	4.46		E
1	Bicycle Segment LOS Score / LOS	3.27		C	2.52		B
1	Transit Segment LOS Score / LOS	2.71		B	3.38		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	109.98	118.19
Facility Travel Speed, mph	22.16	20.62
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	56.61	52.66
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.43	2.48

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.04	C	3.97	D
Bicycle Facility LOS Score / LOS	2.98	C	2.48	C
Transit Facility LOS Score / LOS	3.23	C	3.39	C

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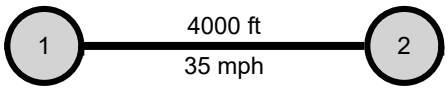
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	12. Froom Ranch from LOVR to	Analysis Year	2019	System Cycle Length, s	120
Intersections	Froom Ranch Way/Dalidio Drive	Froom Ranch Way/LOVR		Analysis Period	1> 7:00
Project Description	Froom Ranch TIS				



Basic Segment Information (Froom Ranch Way between LOVR and Dalido Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	35	35	1	1	4000	4000	120	100	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	41.08			41.09		
1	Running Time, s	68.28			69.03		
1	Running Speed, mph	39.94			39.51		
1	Through Delay, s/veh	30.39			5.13		
1	Travel Time, s	98.67			74.17		
1	Travel Speed, mph	27.64			36.77		
1	Stop Rate, stops/veh	0.83			0.21		
1	Spatial Stop Rate, stops/mi	1.10			0.28		
1	Through vol/cap Ratio	0.40			0.01		
1	Percent of Base FFS	67.28			89.50		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.30			2.18		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.05		C	2.88		C
1	Bicycle Segment LOS Score / LOS	1.32		A	0.88		A
1	Transit Segment LOS Score / LOS	1.07		A	0.53		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	98.67	74.17
Facility Travel Speed, mph	27.64	36.77
Facility Base Free Flow Speed, mph	41.08	41.09
Facility Percent of Base FFS	67.28	89.50
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.30	2.18

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.05	C	2.88	C
Bicycle Facility LOS Score / LOS	1.32	A	0.88	A
Transit Facility LOS Score / LOS	1.07	A	0.53	A

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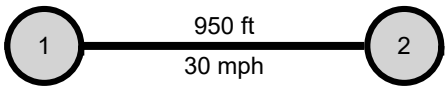
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	PM Peak Period	Number of Iterations	15
File Name	13. Collector A from LOVR to Co	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Collector A	Collector A/Collector B		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan TIS				



Basic Segment Information (Commercial Collector A)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	30	30	1	1	950	950	50	50	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	39.37			39.37		
1	Running Time, s	19.70			19.68		
1	Running Speed, mph	32.88			32.92		
1	Through Delay, s/veh	2.02			0.00		
1	Travel Time, s	21.72			19.68		
1	Travel Speed, mph	29.82			32.92		
1	Stop Rate, stops/veh	0.10			0.00		
1	Spatial Stop Rate, stops/mi	0.56			0.00		
1	Through vol/cap Ratio	0.13			0.00		
1	Percent of Base FFS	75.75			83.61		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.43			2.34		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.44		B	2.85		C
1	Bicycle Segment LOS Score / LOS	2.62		B	2.50		B
1	Transit Segment LOS Score / LOS	0.67		A	0.66		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	21.72	19.68
Facility Travel Speed, mph	29.82	32.92
Facility Base Free Flow Speed, mph	39.37	39.37
Facility Percent of Base FFS	75.75	83.61
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.43	2.34

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.44	C	2.85	C
Bicycle Facility LOS Score / LOS	2.62	C	2.50	C
Transit Facility LOS Score / LOS	0.67	A	0.66	A

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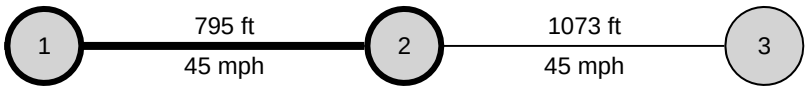
Multimodal Roadway Segment Analysis Sheets - Near Term Scenario 2 Conditions AM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.43			14.25		
1	Running Speed, mph	37.55			38.05		
1	Through Delay, s/veh	4.91			3.26		
1	Travel Time, s	19.34			17.51		
1	Travel Speed, mph	28.03			30.96		
1	Stop Rate, stops/veh	0.34			0.13		
1	Spatial Stop Rate, stops/mi	2.24			0.85		
1	Through vol/cap Ratio	0.47			0.20		
1	Percent of Base FFS	62.29			68.83		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.49			2.48		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.70		D	3.07		C
1	Bicycle Segment LOS Score / LOS	2.12		B	1.84		A
1	Transit Segment LOS Score / LOS	3.62		D	2.62		B

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	40.02	44.02
Facility Travel Speed, mph	31.83	28.93
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	70.01	63.66
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.30	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.67	D	3.29	C
Bicycle Facility LOS Score / LOS	2.04	B	1.61	A
Transit Facility LOS Score / LOS	2.91	C	1.75	A

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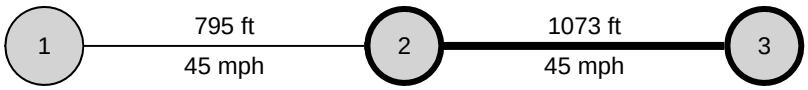
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never					
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.36			18.11		
2	Running Speed, mph	39.85			40.41		
2	Through Delay, s/veh	2.32			8.41		
2	Travel Time, s	20.68			26.51		
2	Travel Speed, mph	35.38			27.59		
2	Stop Rate, stops/veh	0.06			0.48		
2	Spatial Stop Rate, stops/mi	0.32			2.34		
2	Through vol/cap Ratio	0.43			0.30		
2	Percent of Base FFS	77.23			60.24		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.19			2.73		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.65		D	3.46		C
2	Bicycle Segment LOS Score / LOS	1.98		A	1.43		A
2	Transit Segment LOS Score / LOS	2.39		B	1.11		A

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	40.02	44.02
Facility Travel Speed, mph	31.83	28.93
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	70.01	63.66
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.30	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.67	D	3.29	C
Bicycle Facility LOS Score / LOS	2.04	B	1.61	A
Transit Facility LOS Score / LOS	2.91	C	1.75	A

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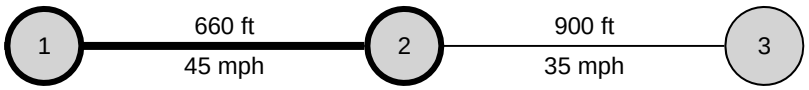
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never		never			
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.78			12.59		
1	Running Speed, mph	35.21			35.74		
1	Through Delay, s/veh	22.03			2.20		
1	Travel Time, s	34.81			14.79		
1	Travel Speed, mph	12.93			30.43		
1	Stop Rate, stops/veh	0.63			0.08		
1	Spatial Stop Rate, stops/mi	5.02			0.63		
1	Through vol/cap Ratio	0.72			0.23		
1	Percent of Base FFS	28.32			66.77		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	2.97			2.23		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.61		D	2.99		C
1	Bicycle Segment LOS Score / LOS	2.40		B	1.51		A
1	Transit Segment LOS Score / LOS	2.54		B	2.82		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	79.81	44.30
Facility Travel Speed, mph	13.33	24.01
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	31.25	52.56
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.93	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.36	C	2.84	C
Bicycle Facility LOS Score / LOS	2.32	C	1.57	A
Transit Facility LOS Score / LOS	2.49	C	2.78	C

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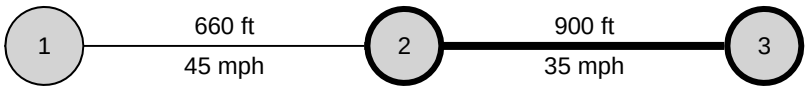
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h				never	never	
2	Shared Lane Spillback Time, h				never		
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.13			15.61		
2	Running Speed, mph	32.09			39.31		
2	Through Delay, s/veh	25.88			13.90		
2	Travel Time, s	45.00			29.51		
2	Travel Speed, mph	13.64			20.79		
2	Stop Rate, stops/veh	0.80			0.42		
2	Spatial Stop Rate, stops/mi	4.67			2.46		
2	Through vol/cap Ratio	0.86			0.28		
2	Percent of Base FFS	33.52			45.45		
2	Level of Service	E			D		
2	Auto Traveler Perception Score	2.91			2.52		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.17		C	2.72		B
2	Bicycle Segment LOS Score / LOS	2.26		B	1.62		A
2	Transit Segment LOS Score / LOS	2.45		B	2.75		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	79.81	44.30
Facility Travel Speed, mph	13.33	24.01
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	31.25	52.56
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.93	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.36	C	2.84	C
Bicycle Facility LOS Score / LOS	2.32	C	1.57	A
Transit Facility LOS Score / LOS	2.49	C	2.78	C

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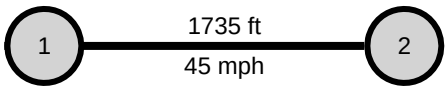
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	115	107	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never		never	never		
1	Base Free-Flow Speed, mph	44.82			44.83		
1	Running Time, s	27.72			27.54		
1	Running Speed, mph	42.67			42.95		
1	Through Delay, s/veh	16.96			31.98		
1	Travel Time, s	44.68			59.52		
1	Travel Speed, mph	26.48			19.87		
1	Stop Rate, stops/veh	0.69			0.79		
1	Spatial Stop Rate, stops/mi	2.11			2.42		
1	Through vol/cap Ratio	0.58			0.51		
1	Percent of Base FFS	59.08			44.34		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.46			2.51		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.38		C	3.23		F
1	Bicycle Segment LOS Score / LOS	2.67		B	1.49		A
1	Transit Segment LOS Score / LOS	3.56		D	2.06		B

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	44.68	59.52
Facility Travel Speed, mph	26.48	19.87
Facility Base Free Flow Speed, mph	44.82	44.83
Facility Percent of Base FFS	59.08	44.34
Facility Level of Service	C	D
Facility Auto Traveler Perception Score	2.46	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.38	C	3.23	F
Bicycle Facility LOS Score / LOS	2.67	C	1.49	A
Transit Facility LOS Score / LOS	3.56	D	2.06	B

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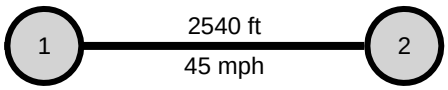
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never		never	never		
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.19			39.88		
1	Running Speed, mph	43.09			43.42		
1	Through Delay, s/veh	7.18			13.31		
1	Travel Time, s	47.37			53.19		
1	Travel Speed, mph	36.56			32.56		
1	Stop Rate, stops/veh	0.44			0.56		
1	Spatial Stop Rate, stops/mi	0.92			1.17		
1	Through vol/cap Ratio	0.48			0.38		
1	Percent of Base FFS	81.61			71.99		
1	Level of Service	A			B		
1	Auto Traveler Perception Score	2.28			2.32		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.45		C	3.41		C
1	Bicycle Segment LOS Score / LOS	2.52		B	1.87		A
1	Transit Segment LOS Score / LOS	3.04		C	3.24		C

Facility Output Data	**Southbound**		**Northbound**	
Facility Travel Time, s	47.37		53.19	
Facility Travel Speed, mph	36.56		32.56	
Facility Base Free Flow Speed, mph	44.80		45.22	
Facility Percent of Base FFS	81.61		71.99	
Facility Level of Service	A		B	
Facility Auto Traveler Perception Score	2.28		2.32	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.45	C	3.41	C
Bicycle Facility LOS Score / LOS	2.52	C	1.87	A
Transit Facility LOS Score / LOS	3.04	C	3.24	C

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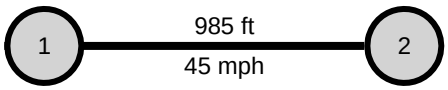
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	35	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h			never	never		
1	Base Free-Flow Speed, mph		45.33			40.66	
1	Running Time, s		17.06			20.16	
1	Running Speed, mph		39.36			33.31	
1	Through Delay, s/veh		16.32			14.75	
1	Travel Time, s		33.38			34.91	
1	Travel Speed, mph		22.43			20.13	
1	Stop Rate, stops/veh		0.50			0.55	
1	Spatial Stop Rate, stops/mi		2.67			2.94	
1	Through vol/cap Ratio		0.65			0.46	
1	Percent of Base FFS		49.48			49.51	
1	Level of Service		D			D	
1	Auto Traveler Perception Score		2.79			2.60	
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.85		D	3.48		C
1	Bicycle Segment LOS Score / LOS	2.86		C	2.59		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	33.38	34.91
Facility Travel Speed, mph	20.12	19.24
Facility Base Free Flow Speed, mph	45.33	40.66
Facility Percent of Base FFS	44.39	47.31
Facility Level of Service	D	D
Facility Auto Traveler Perception Score	2.79	2.60

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.85	D	3.48	C
Bicycle Facility LOS Score / LOS	2.86	C	2.59	C
Transit Facility LOS Score / LOS				

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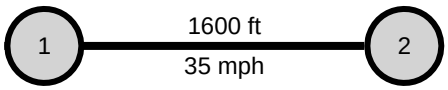
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	35	1	2	1600	1600	72	60	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h					never	
1	Shared Lane Spillback Time, h				never		
1	Base Free-Flow Speed, mph	40.64			41.19		
1	Running Time, s	32.65			29.88		
1	Running Speed, mph	33.41			36.51		
1	Through Delay, s/veh	17.88			9.87		
1	Travel Time, s	50.53			39.75		
1	Travel Speed, mph	21.59			27.45		
1	Stop Rate, stops/veh	0.59			0.38		
1	Spatial Stop Rate, stops/mi	1.93			1.25		
1	Through vol/cap Ratio	0.60			0.53		
1	Percent of Base FFS	53.12			66.64		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.66			2.55		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.56		E	3.55		D
1	Bicycle Segment LOS Score / LOS	2.44		B	1.83		A
1	Transit Segment LOS Score / LOS	3.98		D	3.61		D

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	50.53	39.75
Facility Travel Speed, mph	21.59	27.45
Facility Base Free Flow Speed, mph	40.64	41.19
Facility Percent of Base FFS	53.12	66.64
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.66	2.55

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.56	E	3.55	D
Bicycle Facility LOS Score / LOS	2.44	C	1.83	A
Transit Facility LOS Score / LOS	3.98	D	3.61	D

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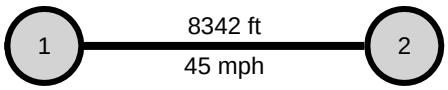
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never					
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	126.68			126.92		
1	Running Speed, mph	44.90			44.81		
1	Through Delay, s/veh	1.04			12.68		
1	Travel Time, s	127.72			139.60		
1	Travel Speed, mph	44.53			40.74		
1	Stop Rate, stops/veh	0.36			0.56		
1	Spatial Stop Rate, stops/mi	0.23			0.35		
1	Through vol/cap Ratio	0.32			0.39		
1	Percent of Base FFS	97.40			89.10		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.56		A	1.60		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	127.72	139.60
Facility Travel Speed, mph	44.53	40.74
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	97.40	89.10
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.40

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.56	A	1.60	A
Transit Facility LOS Score / LOS				

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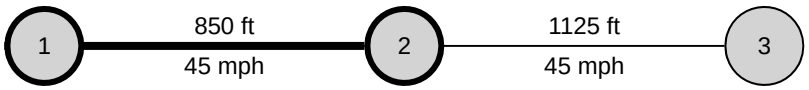
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	110	90	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.59			44.80		
1	Running Time, s	15.30			15.31		
1	Running Speed, mph	37.88			37.85		
1	Through Delay, s/veh	4.96			19.97		
1	Travel Time, s	20.27			35.28		
1	Travel Speed, mph	28.60			16.43		
1	Stop Rate, stops/veh	0.24			0.67		
1	Spatial Stop Rate, stops/mi	1.47			4.19		
1	Through vol/cap Ratio	0.58			0.49		
1	Percent of Base FFS	62.73			36.67		
1	Level of Service	C			E		
1	Auto Traveler Perception Score	2.58			2.82		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.13		C	3.78		D
1	Bicycle Segment LOS Score / LOS	2.43		B	2.05		B
1	Transit Segment LOS Score / LOS	3.09		C	3.15		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	67.92	57.14
Facility Travel Speed, mph	19.83	23.57
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	43.40	51.99
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.58	2.48

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.87	C	3.25	C
Bicycle Facility LOS Score / LOS	2.93	C	2.55	C
Transit Facility LOS Score / LOS	3.21	C	4.13	D

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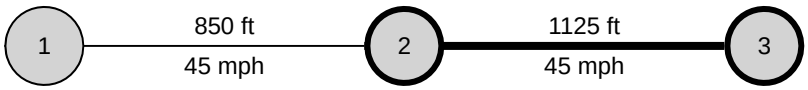
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	95	115	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h		never	0.02		never	
2	Shared Lane Spillback Time, h	never		0.54	never		
2	Base Free-Flow Speed, mph	45.76			45.74		
2	Running Time, s	19.05			18.76		
2	Running Speed, mph	40.27			40.88		
2	Through Delay, s/veh	28.60			3.10		
2	Travel Time, s	47.65			21.86		
2	Travel Speed, mph	16.10			35.09		
2	Stop Rate, stops/veh	0.60			0.19		
2	Spatial Stop Rate, stops/mi	2.83			0.88		
2	Through vol/cap Ratio	0.40			0.24		
2	Percent of Base FFS	35.18			76.70		
2	Level of Service	E			B		
2	Auto Traveler Perception Score	2.58			2.27		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.67		B	2.86		C
2	Bicycle Segment LOS Score / LOS	3.30		C	2.93		C
2	Transit Segment LOS Score / LOS	3.29		C	4.86		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	67.92	57.14
Facility Travel Speed, mph	19.83	23.57
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	43.40	51.99
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.58	2.48

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.87	C	3.25	C
Bicycle Facility LOS Score / LOS	2.93	C	2.55	C
Transit Facility LOS Score / LOS	3.21	C	4.13	D

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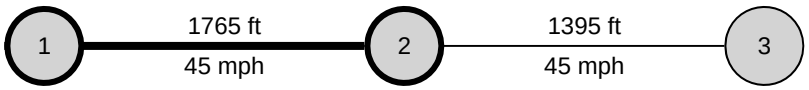
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	85	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h					never	
1	Shared Lane Spillback Time, h				never		
1	Base Free-Flow Speed, mph	45.05			45.07		
1	Running Time, s	28.18			28.20		
1	Running Speed, mph	42.71			42.67		
1	Through Delay, s/veh	7.98			14.23		
1	Travel Time, s	36.16			42.44		
1	Travel Speed, mph	33.28			28.36		
1	Stop Rate, stops/veh	0.53			0.42		
1	Spatial Stop Rate, stops/mi	1.59			1.24		
1	Through vol/cap Ratio	0.50			0.21		
1	Percent of Base FFS	73.89			62.92		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.60			2.54		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.31		B	3.41		C
1	Bicycle Segment LOS Score / LOS	2.11		B	2.55		B
1	Transit Segment LOS Score / LOS	3.23		C	3.26		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	77.51	68.53
Facility Travel Speed, mph	27.80	31.44
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	61.49	69.53
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.59	2.45

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.57	C	3.45	F
Bicycle Facility LOS Score / LOS	2.06	B	2.46	C
Transit Facility LOS Score / LOS	3.27	C	3.57	D

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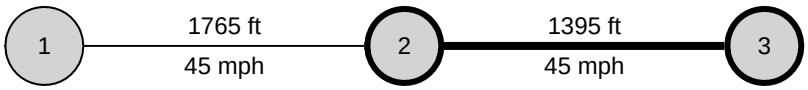
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	75	75	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h		never				
2	Shared Lane Spillback Time, h	never					
2	Base Free-Flow Speed, mph	45.42			45.40		
2	Running Time, s	22.63			22.74		
2	Running Speed, mph	42.02			41.82		
2	Through Delay, s/veh	18.72			3.35		
2	Travel Time, s	41.35			26.09		
2	Travel Speed, mph	23.00			36.45		
2	Stop Rate, stops/veh	0.74			0.34		
2	Spatial Stop Rate, stops/mi	2.80			1.30		
2	Through vol/cap Ratio	0.45			0.35		
2	Percent of Base FFS	50.65			80.30		
2	Level of Service	C			A		
2	Auto Traveler Perception Score	2.58			2.33		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.91		C	3.51		F
2	Bicycle Segment LOS Score / LOS	2.00		A	2.35		B
2	Transit Segment LOS Score / LOS	3.32		C	3.95		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	77.51	68.53
Facility Travel Speed, mph	27.80	31.44
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	61.49	69.53
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.59	2.45

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.57	C	3.45	F
Bicycle Facility LOS Score / LOS	2.06	B	2.46	C
Transit Facility LOS Score / LOS	3.27	C	3.57	D

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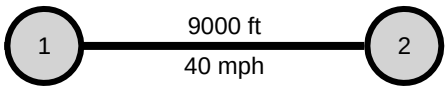
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	60	70	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		never
1	Base Free-Flow Speed, mph	42.40			43.15		
1	Running Time, s	156.79			146.50		
1	Running Speed, mph	39.14			41.89		
1	Through Delay, s/veh	24.40			33.56		
1	Travel Time, s	181.19			180.06		
1	Travel Speed, mph	33.87			34.08		
1	Stop Rate, stops/veh	0.53			0.67		
1	Spatial Stop Rate, stops/mi	0.31			0.39		
1	Through vol/cap Ratio	0.03			0.26		
1	Percent of Base FFS	79.88			78.97		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.19			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.90		C	2.74		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	181.19	180.06
Facility Travel Speed, mph	33.87	34.08
Facility Base Free Flow Speed, mph	42.40	43.15
Facility Percent of Base FFS	79.88	78.97
Facility Level of Service	B	B
Facility Auto Traveler Perception Score	2.19	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.90	C	2.74	C
Transit Facility LOS Score / LOS				

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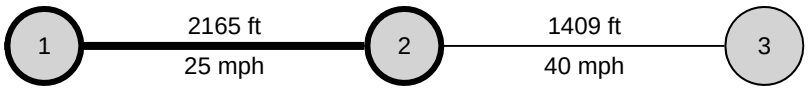
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	LOVR/Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	110	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	never
1	Shared Lane Spillback Time, h	never					never
1	Base Free-Flow Speed, mph	36.52			40.73		
1	Running Time, s	43.02			39.63		
1	Running Speed, mph	34.31			37.25		
1	Through Delay, s/veh	18.91			28.36		
1	Travel Time, s	61.93			67.99		
1	Travel Speed, mph	23.83			21.71		
1	Stop Rate, stops/veh	0.77			0.69		
1	Spatial Stop Rate, stops/mi	1.87			1.68		
1	Through vol/cap Ratio	0.78			0.20		
1	Percent of Base FFS	65.26			53.31		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.43			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.52		F	4.01		F
1	Bicycle Segment LOS Score / LOS	3.37		C	2.31		B
1	Transit Segment LOS Score / LOS	3.10		C	3.13		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	106.16	115.91
Facility Travel Speed, mph	22.96	21.02
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	58.98	54.13
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.45	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.26	F	3.78	F
Bicycle Facility LOS Score / LOS	3.07	C	2.23	B
Transit Facility LOS Score / LOS	3.29	C	3.35	C

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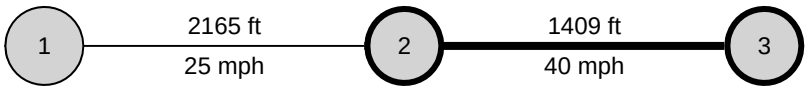
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	76	70	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	43.30			36.25		
2	Running Time, s	25.58			29.40		
2	Running Speed, mph	37.56			32.67		
2	Through Delay, s/veh	18.65			18.52		
2	Travel Time, s	44.22			47.92		
2	Travel Speed, mph	21.72			20.05		
2	Stop Rate, stops/veh	0.60			0.77		
2	Spatial Stop Rate, stops/mi	2.25			2.89		
2	Through vol/cap Ratio	0.64			0.66		
2	Percent of Base FFS	50.17			55.30		
2	Level of Service	C			C		
2	Auto Traveler Perception Score	2.49			2.59		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.87		D	3.44		C
2	Bicycle Segment LOS Score / LOS	2.60		B	2.10		B
2	Transit Segment LOS Score / LOS	3.59		D	3.68		D

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	106.16	115.91
Facility Travel Speed, mph	22.96	21.02
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	58.98	54.13
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.45	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.26	F	3.78	F
Bicycle Facility LOS Score / LOS	3.07	C	2.23	B
Transit Facility LOS Score / LOS	3.29	C	3.35	C

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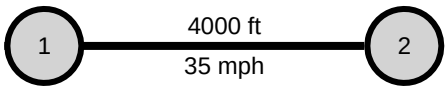
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	12. Froom Ranch Way from LOV	Analysis Year	2019	System Cycle Length, s	120
Intersections	Froom Ranch Way/Dalidio Drive	Froom Ranch Way/LOVR		Analysis Period	1> 7:00
Project Description	Froom Ranch TIS				



Basic Segment Information (Froom Ranch Way between LOVR and Dalido Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	35	35	1	1	4000	4000	120	100	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h				never		never
1	Base Free-Flow Speed, mph	41.08			41.09		
1	Running Time, s	67.41			67.52		
1	Running Speed, mph	40.46			40.39		
1	Through Delay, s/veh	20.27			1.44		
1	Travel Time, s	87.67			68.96		
1	Travel Speed, mph	31.11			39.55		
1	Stop Rate, stops/veh	0.84			0.07		
1	Spatial Stop Rate, stops/mi	1.11			0.09		
1	Through vol/cap Ratio	0.04			0.09		
1	Percent of Base FFS	75.72			96.26		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.31			2.15		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.84		C	2.48		B
1	Bicycle Segment LOS Score / LOS	0.89		A	0.63		A
1	Transit Segment LOS Score / LOS	0.77		A	0.33		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	87.67	68.96
Facility Travel Speed, mph	31.11	39.55
Facility Base Free Flow Speed, mph	41.08	41.09
Facility Percent of Base FFS	75.72	96.26
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.31	2.15

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.84	C	2.48	C
Bicycle Facility LOS Score / LOS	0.89	A	0.63	A
Transit Facility LOS Score / LOS	0.77	A	0.33	A

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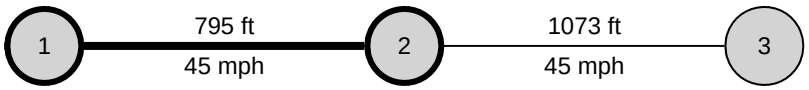
Multimodal Roadway Segment Analysis Sheets - Near Term Scenario 2 Conditions PM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.39			14.57		
1	Running Speed, mph	37.66			37.20		
1	Through Delay, s/veh	3.15			3.18		
1	Travel Time, s	17.55			17.75		
1	Travel Speed, mph	30.89			30.53		
1	Stop Rate, stops/veh	0.26			0.11		
1	Spatial Stop Rate, stops/mi	1.70			0.75		
1	Through vol/cap Ratio	0.40			0.44		
1	Percent of Base FFS	68.65			67.89		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.40			2.46		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.59		D	3.96		D
1	Bicycle Segment LOS Score / LOS	2.09		B	2.18		B
1	Transit Segment LOS Score / LOS	3.61		D	2.77		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	38.15	45.83
Facility Travel Speed, mph	33.38	27.79
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	73.43	61.15
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.28	2.61

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.54	D	4.11	D
Bicycle Facility LOS Score / LOS	1.99	A	1.89	A
Transit Facility LOS Score / LOS	2.88	C	1.96	A

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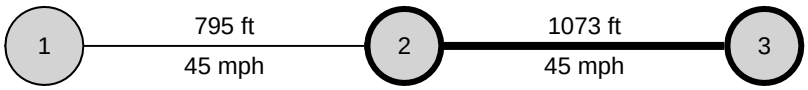
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never					
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.24			18.49		
2	Running Speed, mph	40.11			39.57		
2	Through Delay, s/veh	2.36			9.59		
2	Travel Time, s	20.61			28.08		
2	Travel Speed, mph	35.51			26.06		
2	Stop Rate, stops/veh	0.07			0.47		
2	Spatial Stop Rate, stops/mi	0.36			2.33		
2	Through vol/cap Ratio	0.38			0.71		
2	Percent of Base FFS	77.50			56.89		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.19			2.73		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.50		C	4.23		D
2	Bicycle Segment LOS Score / LOS	1.91		A	1.67		A
2	Transit Segment LOS Score / LOS	2.34		B	1.36		A

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	38.15	45.83
Facility Travel Speed, mph	33.38	27.79
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	73.43	61.15
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.28	2.61

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.54	D	4.11	D
Bicycle Facility LOS Score / LOS	1.99	A	1.89	A
Transit Facility LOS Score / LOS	2.88	C	1.96	A

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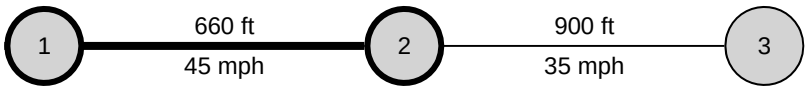
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h	never	never			never	
1	Shared Lane Spillback Time, h	never		never			
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.72			12.71		
1	Running Speed, mph	35.38			35.41		
1	Through Delay, s/veh	31.17			2.98		
1	Travel Time, s	43.89			15.69		
1	Travel Speed, mph	10.25			28.68		
1	Stop Rate, stops/veh	0.81			0.11		
1	Spatial Stop Rate, stops/mi	6.49			0.85		
1	Through vol/cap Ratio	0.90			0.37		
1	Percent of Base FFS	22.46			62.95		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	3.25			2.27		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.49		C	3.45		C
1	Bicycle Segment LOS Score / LOS	2.34		B	1.72		A
1	Transit Segment LOS Score / LOS	2.85		C	2.92		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	109.63	48.17
Facility Travel Speed, mph	9.70	22.08
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	22.75	48.35
Facility Level of Service	F	D
Facility Auto Traveler Perception Score	3.15	2.54

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.25	C	3.25	C
Bicycle Facility LOS Score / LOS	2.26	C	1.82	A
Transit Facility LOS Score / LOS	2.61	C	2.92	C

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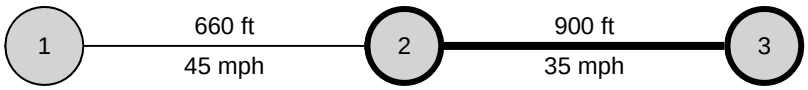
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h				never	never	
2	Shared Lane Spillback Time, h				never		
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.04			15.84		
2	Running Speed, mph	32.22			38.73		
2	Through Delay, s/veh	46.69			16.63		
2	Travel Time, s	65.74			32.48		
2	Travel Speed, mph	9.33			18.89		
2	Stop Rate, stops/veh	0.95			0.69		
2	Spatial Stop Rate, stops/mi	5.59			4.06		
2	Through vol/cap Ratio	0.93			0.68		
2	Percent of Base FFS	22.95			41.29		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	3.08			2.80		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.06		C	3.11		C
2	Bicycle Segment LOS Score / LOS	2.20		B	1.89		A
2	Transit Segment LOS Score / LOS	2.43		B	2.92		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	109.63	48.17
Facility Travel Speed, mph	9.70	22.08
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	22.75	48.35
Facility Level of Service	F	D
Facility Auto Traveler Perception Score	3.15	2.54

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.25	C	3.25	C
Bicycle Facility LOS Score / LOS	2.26	C	1.82	A
Transit Facility LOS Score / LOS	2.61	C	2.92	C

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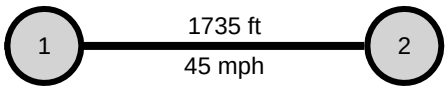
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 4:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	107	115	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h	never	never			never	
1	Shared Lane Spillback Time, h	never		never	never		
1	Base Free-Flow Speed, mph	44.83			44.82		
1	Running Time, s	27.78			27.96		
1	Running Speed, mph	42.58			42.31		
1	Through Delay, s/veh	33.31			41.90		
1	Travel Time, s	61.08			69.86		
1	Travel Speed, mph	19.37			16.93		
1	Stop Rate, stops/veh	0.84			0.89		
1	Spatial Stop Rate, stops/mi	2.55			2.71		
1	Through vol/cap Ratio	0.79			0.90		
1	Percent of Base FFS	43.20			37.78		
1	Level of Service	D			E		
1	Auto Traveler Perception Score	2.54			2.56		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.50		D	3.70		D
1	Bicycle Segment LOS Score / LOS	2.66		B	1.84		A
1	Transit Segment LOS Score / LOS	3.77		D	2.16		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	61.08	69.86
Facility Travel Speed, mph	19.37	16.93
Facility Base Free Flow Speed, mph	44.83	44.82
Facility Percent of Base FFS	43.20	37.78
Facility Level of Service	D	E
Facility Auto Traveler Perception Score	2.54	2.56

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.50	D	3.70	D
Bicycle Facility LOS Score / LOS	2.66	C	1.84	A
Transit Facility LOS Score / LOS	3.77	D	2.16	B

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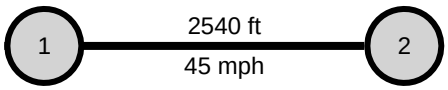
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never		never	never		
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.50			40.36		
1	Running Speed, mph	42.76			42.91		
1	Through Delay, s/veh	10.46			21.42		
1	Travel Time, s	50.96			61.78		
1	Travel Speed, mph	33.98			28.03		
1	Stop Rate, stops/veh	0.56			0.68		
1	Spatial Stop Rate, stops/mi	1.16			1.41		
1	Through vol/cap Ratio	0.64			0.59		
1	Percent of Base FFS	75.86			61.98		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.31			2.35		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.67		D	3.49		C
1	Bicycle Segment LOS Score / LOS	2.64		B	2.05		B
1	Transit Segment LOS Score / LOS	3.14		C	3.41		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	50.96	61.78
Facility Travel Speed, mph	33.98	28.03
Facility Base Free Flow Speed, mph	44.80	45.22
Facility Percent of Base FFS	75.86	61.98
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.35

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.67	D	3.49	C
Bicycle Facility LOS Score / LOS	2.64	C	2.05	B
Transit Facility LOS Score / LOS	3.14	C	3.41	C

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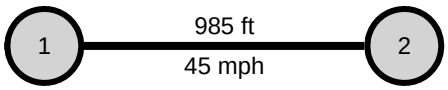
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h			never	never		
1	Base Free-Flow Speed, mph	45.33			45.36		
1	Running Time, s	17.03			17.16		
1	Running Speed, mph	39.44			39.14		
1	Through Delay, s/veh	20.63			10.79		
1	Travel Time, s	37.66			27.95		
1	Travel Speed, mph	17.83			24.03		
1	Stop Rate, stops/veh	0.65			0.36		
1	Spatial Stop Rate, stops/mi	3.48			1.94		
1	Through vol/cap Ratio	0.49			0.65		
1	Percent of Base FFS	39.34			52.98		
1	Level of Service	E			C		
1	Auto Traveler Perception Score	2.94			2.44		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.60		D	3.84		D
1	Bicycle Segment LOS Score / LOS	2.82		C	2.96		C
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	37.66	27.95
Facility Travel Speed, mph	17.83	24.03
Facility Base Free Flow Speed, mph	45.33	45.36
Facility Percent of Base FFS	39.34	52.98
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.94	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.60	D	3.84	D
Bicycle Facility LOS Score / LOS	2.82	C	2.96	C
Transit Facility LOS Score / LOS				

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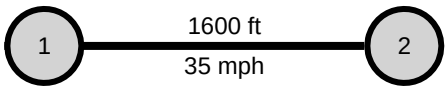
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	45	1	2	1600	1600	105	60	540	540	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h					never	
1	Shared Lane Spillback Time, h				never		
1	Base Free-Flow Speed, mph	40.78			45.77		
1	Running Time, s	31.04			25.93		
1	Running Speed, mph	35.15			42.07		
1	Through Delay, s/veh	17.84			9.18		
1	Travel Time, s	48.88			35.11		
1	Travel Speed, mph	22.32			31.07		
1	Stop Rate, stops/veh	0.64			0.33		
1	Spatial Stop Rate, stops/mi	2.12			1.08		
1	Through vol/cap Ratio	0.53			0.42		
1	Percent of Base FFS	54.73			67.88		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.69			2.52		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.93		D	3.39		C
1	Bicycle Segment LOS Score / LOS	2.45		B	1.99		A
1	Transit Segment LOS Score / LOS	3.51		D	3.36		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	48.88	35.11
Facility Travel Speed, mph	22.32	31.07
Facility Base Free Flow Speed, mph	40.78	45.77
Facility Percent of Base FFS	54.73	67.88
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.69	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.93	D	3.39	C
Bicycle Facility LOS Score / LOS	2.45	C	1.99	A
Transit Facility LOS Score / LOS	3.51	D	3.36	C

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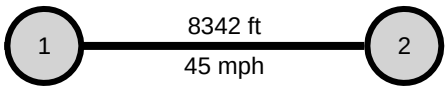
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never					
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	128.73			126.22		
1	Running Speed, mph	44.18			45.06		
1	Through Delay, s/veh	1.38			8.33		
1	Travel Time, s	130.10			134.55		
1	Travel Speed, mph	43.72			42.27		
1	Stop Rate, stops/veh	0.36			0.34		
1	Spatial Stop Rate, stops/mi	0.23			0.22		
1	Through vol/cap Ratio	0.58			0.20		
1	Percent of Base FFS	95.62			92.44		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.38		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.78		A	1.48		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	130.10	134.55
Facility Travel Speed, mph	43.72	42.27
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	95.62	92.44
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.38

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.78	A	1.48	A
Transit Facility LOS Score / LOS				

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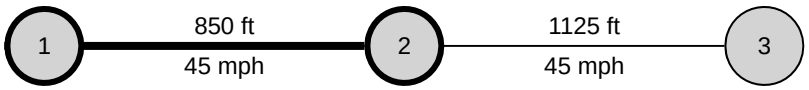
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	100	95	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.60			44.78		
1	Running Time, s	15.13			16.61		
1	Running Speed, mph	38.31			34.90		
1	Through Delay, s/veh	9.97			18.80		
1	Travel Time, s	25.10			35.40		
1	Travel Speed, mph	23.09			16.37		
1	Stop Rate, stops/veh	0.36			0.55		
1	Spatial Stop Rate, stops/mi	2.21			3.44		
1	Through vol/cap Ratio	0.50			0.67		
1	Percent of Base FFS	50.64			36.55		
1	Level of Service	C			E		
1	Auto Traveler Perception Score	2.71			2.69		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.12		C	4.57		E
1	Bicycle Segment LOS Score / LOS	2.34		B	2.43		B
1	Transit Segment LOS Score / LOS	2.05		B	3.01		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	89.83	65.54
Facility Travel Speed, mph	14.99	20.55
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	32.81	45.32
Facility Level of Service	E	D
Facility Auto Traveler Perception Score	2.70	2.53

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.05	C	3.89	D
Bicycle Facility LOS Score / LOS	2.99	C	2.95	C
Transit Facility LOS Score / LOS	3.88	D	4.16	D

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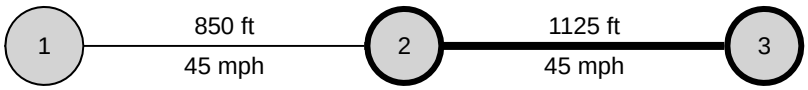
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	85	75	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h		never	0.05		never	
2	Shared Lane Spillback Time, h	never		0.36	never		
2	Base Free-Flow Speed, mph	45.76			45.77		
2	Running Time, s	19.00			19.14		
2	Running Speed, mph	40.36			40.08		
2	Through Delay, s/veh	45.73			10.99		
2	Travel Time, s	64.73			30.13		
2	Travel Speed, mph	11.85			25.46		
2	Stop Rate, stops/veh	0.75			0.39		
2	Spatial Stop Rate, stops/mi	3.50			1.85		
2	Through vol/cap Ratio	0.68			0.61		
2	Percent of Base FFS	25.89			55.62		
2	Level of Service	F			C		
2	Auto Traveler Perception Score	2.70			2.42		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.99		C	3.38		C
2	Bicycle Segment LOS Score / LOS	3.49		C	3.34		C
2	Transit Segment LOS Score / LOS	5.26		F	5.03		F

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	89.83	65.54
Facility Travel Speed, mph	14.99	20.55
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	32.81	45.32
Facility Level of Service	E	D
Facility Auto Traveler Perception Score	2.70	2.53

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.05	C	3.89	D
Bicycle Facility LOS Score / LOS	2.99	C	2.95	C
Transit Facility LOS Score / LOS	3.88	D	4.16	D

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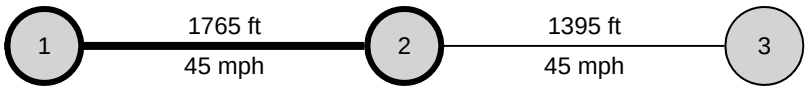
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	115	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h				0.06	never	
1	Shared Lane Spillback Time, h				0.93		
1	Base Free-Flow Speed, mph	45.05			45.05		
1	Running Time, s	28.67			28.58		
1	Running Speed, mph	41.98			42.10		
1	Through Delay, s/veh	14.16			29.86		
1	Travel Time, s	42.83			58.44		
1	Travel Speed, mph	28.10			20.59		
1	Stop Rate, stops/veh	0.56			0.61		
1	Spatial Stop Rate, stops/mi	1.67			1.83		
1	Through vol/cap Ratio	0.85			0.56		
1	Percent of Base FFS	62.38			45.71		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.62			2.64		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.17		C	3.94		D
1	Bicycle Segment LOS Score / LOS	2.54		B	2.99		C
1	Transit Segment LOS Score / LOS	3.48		C	3.82		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	83.28	87.64
Facility Travel Speed, mph	25.87	24.58
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	57.19	54.35
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.58	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.33	C	4.31	F
Bicycle Facility LOS Score / LOS	2.41	C	2.72	C
Transit Facility LOS Score / LOS	4.18	D	4.02	D

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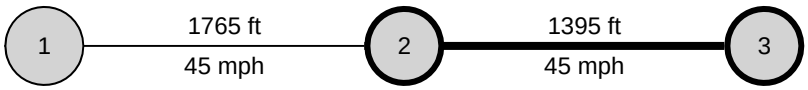
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h		never				
2	Shared Lane Spillback Time, h	never					
2	Base Free-Flow Speed, mph	45.48			45.46		
2	Running Time, s	23.11			22.91		
2	Running Speed, mph	41.17			41.52		
2	Through Delay, s/veh	17.35			6.29		
2	Travel Time, s	40.46			29.20		
2	Travel Speed, mph	23.51			32.57		
2	Stop Rate, stops/veh	0.66			0.40		
2	Spatial Stop Rate, stops/mi	2.50			1.52		
2	Through vol/cap Ratio	0.60			0.53		
2	Percent of Base FFS	51.69			71.65		
2	Level of Service	C			B		
2	Auto Traveler Perception Score	2.53			2.37		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.53		D	4.77		F
2	Bicycle Segment LOS Score / LOS	2.25		B	2.38		B
2	Transit Segment LOS Score / LOS	5.08		F	4.29		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	83.28	87.64
Facility Travel Speed, mph	25.87	24.58
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	57.19	54.35
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.58	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.33	C	4.31	F
Bicycle Facility LOS Score / LOS	2.41	C	2.72	C
Transit Facility LOS Score / LOS	4.18	D	4.02	D

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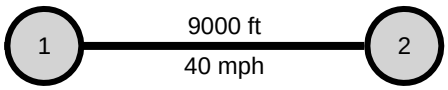
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	135	90	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		never
1	Base Free-Flow Speed, mph	42.38			43.15		
1	Running Time, s	155.28			146.25		
1	Running Speed, mph	39.52			41.96		
1	Through Delay, s/veh	26.60			33.46		
1	Travel Time, s	181.88			179.71		
1	Travel Speed, mph	33.74			34.15		
1	Stop Rate, stops/veh	0.59			0.74		
1	Spatial Stop Rate, stops/mi	0.34			0.43		
1	Through vol/cap Ratio	0.03			0.43		
1	Percent of Base FFS	79.61			79.13		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.19			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.99		C	2.71		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound		Eastbound	
Facility Travel Time, s	181.88		179.71	
Facility Travel Speed, mph	33.74		34.15	
Facility Base Free Flow Speed, mph	42.38		43.15	
Facility Percent of Base FFS	79.61		79.13	
Facility Level of Service	B		B	
Facility Auto Traveler Perception Score	2.19		2.41	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.99	C	2.71	C
Transit Facility LOS Score / LOS				

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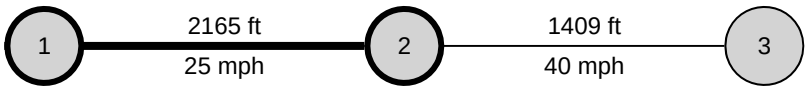
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	LOVR/Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	115	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	0.04
1	Shared Lane Spillback Time, h	never					0.27
1	Base Free-Flow Speed, mph	36.62			40.93		
1	Running Time, s	42.89			41.64		
1	Running Speed, mph	34.42			35.45		
1	Through Delay, s/veh	15.40			30.14		
1	Travel Time, s	58.29			71.78		
1	Travel Speed, mph	25.32			20.56		
1	Stop Rate, stops/veh	0.68			0.70		
1	Spatial Stop Rate, stops/mi	1.66			1.71		
1	Through vol/cap Ratio	0.51			0.33		
1	Percent of Base FFS	69.16			50.25		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.39			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.78		C	4.67		E
1	Bicycle Segment LOS Score / LOS	3.31		C	2.57		B
1	Transit Segment LOS Score / LOS	2.76		C	3.44		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	114.24	120.58
Facility Travel Speed, mph	21.33	20.21
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	54.51	51.62
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.45	2.48

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.14	C	4.14	D
Bicycle Facility LOS Score / LOS	3.01	C	2.52	C
Transit Facility LOS Score / LOS	3.28	C	3.45	C

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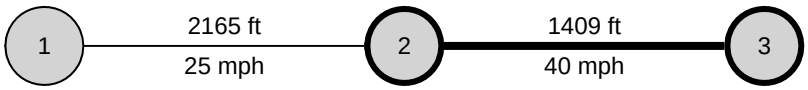
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	90	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never		never	never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	43.76			36.71		
2	Running Time, s	25.21			30.02		
2	Running Speed, mph	38.11			32.00		
2	Through Delay, s/veh	30.74			18.78		
2	Travel Time, s	55.95			48.80		
2	Travel Speed, mph	17.17			19.69		
2	Stop Rate, stops/veh	0.68			0.78		
2	Spatial Stop Rate, stops/mi	2.55			2.93		
2	Through vol/cap Ratio	0.63			0.76		
2	Percent of Base FFS	39.24			53.63		
2	Level of Service	E			C		
2	Auto Traveler Perception Score	2.54			2.60		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.70		D	3.34		C
2	Bicycle Segment LOS Score / LOS	2.55		B	2.46		B
2	Transit Segment LOS Score / LOS	4.09		D	3.48		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	114.24	120.58
Facility Travel Speed, mph	21.33	20.21
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	54.51	51.62
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.45	2.48

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.14	C	4.14	F
Bicycle Facility LOS Score / LOS	3.01	C	2.52	C
Transit Facility LOS Score / LOS	3.28	C	3.45	C

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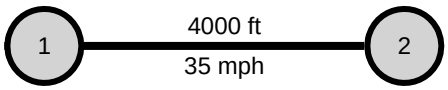
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	12. Froom Ranch Way from LOV	Analysis Year	2019	System Cycle Length, s	120
Intersections	Froom Ranch Way/Dalidio Drive	Froom Ranch Way/LOVR		Analysis Period	1> 7:00
Project Description	Froom Ranch TIS				



Basic Segment Information (Froom Ranch Way between LOVR and Dalido Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	35	35	1	1	4000	4000	120	100	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h				never		never
1	Base Free-Flow Speed, mph	41.08			41.09		
1	Running Time, s	67.65			68.11		
1	Running Speed, mph	40.32			40.04		
1	Through Delay, s/veh	29.12			3.49		
1	Travel Time, s	96.76			71.60		
1	Travel Speed, mph	28.18			38.09		
1	Stop Rate, stops/veh	0.82			0.15		
1	Spatial Stop Rate, stops/mi	1.08			0.20		
1	Through vol/cap Ratio	0.11			0.26		
1	Percent of Base FFS	68.60			92.71		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.30			2.17		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.77		C	2.50		B
1	Bicycle Segment LOS Score / LOS	0.43		A	0.65		A
1	Transit Segment LOS Score / LOS	0.96		A	0.28		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	96.76	71.60
Facility Travel Speed, mph	28.18	38.09
Facility Base Free Flow Speed, mph	41.08	41.09
Facility Percent of Base FFS	68.60	92.71
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.30	2.17

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.77	C	2.50	C
Bicycle Facility LOS Score / LOS	0.43	A	0.65	A
Transit Facility LOS Score / LOS	0.96	A	0.28	A

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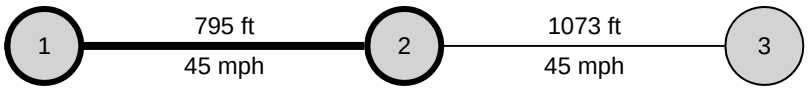
Multimodal Roadway Segment Analysis Sheets - Near Term Plus Project Scenario 2 Conditions AM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.44			14.25		
1	Running Speed, mph	37.55			38.04		
1	Through Delay, s/veh	4.94			3.35		
1	Travel Time, s	19.37			17.60		
1	Travel Speed, mph	27.98			30.80		
1	Stop Rate, stops/veh	0.34			0.13		
1	Spatial Stop Rate, stops/mi	2.24			0.87		
1	Through vol/cap Ratio	0.47			0.22		
1	Percent of Base FFS	62.18			68.48		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.49			2.48		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.71		D	3.08		C
1	Bicycle Segment LOS Score / LOS	2.12		B	1.85		A
1	Transit Segment LOS Score / LOS	3.63		D	2.62		B

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	40.08	44.16
Facility Travel Speed, mph	31.78	28.84
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	69.91	63.45
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.30	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.68	D	3.31	C
Bicycle Facility LOS Score / LOS	2.04	B	1.61	A
Transit Facility LOS Score / LOS	2.92	C	1.76	A

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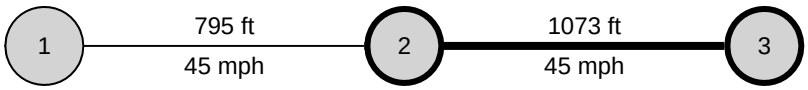
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never					
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.36			18.11		
2	Running Speed, mph	39.84			40.39		
2	Through Delay, s/veh	2.34			8.45		
2	Travel Time, s	20.70			26.56		
2	Travel Speed, mph	35.34			27.54		
2	Stop Rate, stops/veh	0.06			0.48		
2	Spatial Stop Rate, stops/mi	0.31			2.34		
2	Through vol/cap Ratio	0.44			0.31		
2	Percent of Base FFS	77.14			60.13		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.19			2.73		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.66		D	3.48		C
2	Bicycle Segment LOS Score / LOS	1.98		A	1.44		A
2	Transit Segment LOS Score / LOS	2.39		B	1.12		A

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	40.08	44.16
Facility Travel Speed, mph	31.78	28.84
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	69.91	63.45
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.30	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.68	D	3.31	C
Bicycle Facility LOS Score / LOS	2.04	B	1.61	A
Transit Facility LOS Score / LOS	2.92	C	1.76	A

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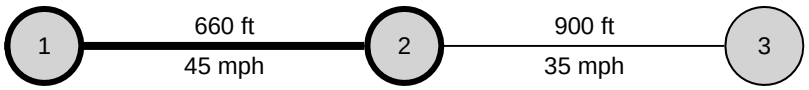
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h	never	never			never	
1	Shared Lane Spillback Time, h	never		never			
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.89			12.57		
1	Running Speed, mph	34.91			35.81		
1	Through Delay, s/veh	27.84			3.42		
1	Travel Time, s	40.73			15.98		
1	Travel Speed, mph	11.05			28.15		
1	Stop Rate, stops/veh	0.68			0.32		
1	Spatial Stop Rate, stops/mi	5.41			2.56		
1	Through vol/cap Ratio	0.86			0.25		
1	Percent of Base FFS	24.20			61.78		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	3.04			2.54		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.88		D	2.90		C
1	Bicycle Segment LOS Score / LOS	2.46		B	1.49		A
1	Transit Segment LOS Score / LOS	2.83		C	2.84		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	83.34	46.00
Facility Travel Speed, mph	12.76	23.12
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	29.93	50.62
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	2.84	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.61	D	2.78	C
Bicycle Facility LOS Score / LOS	2.39	C	1.54	A
Transit Facility LOS Score / LOS	2.66	C	2.80	C

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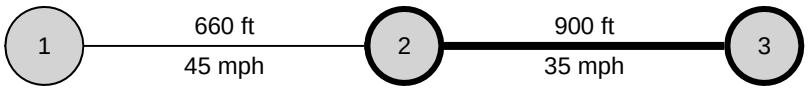
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h				never	never	
2	Shared Lane Spillback Time, h				never		
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.49			15.61		
2	Running Speed, mph	31.49			39.30		
2	Through Delay, s/veh	23.12			14.40		
2	Travel Time, s	42.61			30.02		
2	Travel Speed, mph	14.40			20.44		
2	Stop Rate, stops/veh	0.61			0.39		
2	Spatial Stop Rate, stops/mi	3.59			2.31		
2	Through vol/cap Ratio	0.64			0.28		
2	Percent of Base FFS	35.40			44.68		
2	Level of Service	E			D		
2	Auto Traveler Perception Score	2.71			2.50		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.41		C	2.70		B
2	Bicycle Segment LOS Score / LOS	2.34		B	1.57		A
2	Transit Segment LOS Score / LOS	2.53		B	2.77		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	83.34	46.00
Facility Travel Speed, mph	12.76	23.12
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	29.93	50.62
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	2.84	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.61	D	2.78	C
Bicycle Facility LOS Score / LOS	2.39	C	1.54	A
Transit Facility LOS Score / LOS	2.66	C	2.80	C

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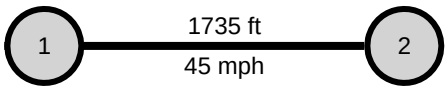
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	115	107	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never		never	never		
1	Base Free-Flow Speed, mph	44.82			44.83		
1	Running Time, s	27.73			27.56		
1	Running Speed, mph	42.66			42.93		
1	Through Delay, s/veh	17.04			32.34		
1	Travel Time, s	44.77			59.89		
1	Travel Speed, mph	26.43			19.75		
1	Stop Rate, stops/veh	0.69			0.80		
1	Spatial Stop Rate, stops/mi	2.11			2.42		
1	Through vol/cap Ratio	0.59			0.52		
1	Percent of Base FFS	58.96			44.06		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.46			2.51		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.40		C	3.25		F
1	Bicycle Segment LOS Score / LOS	2.68		B	1.50		A
1	Transit Segment LOS Score / LOS	3.56		D	2.07		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	44.77	59.89
Facility Travel Speed, mph	26.43	19.75
Facility Base Free Flow Speed, mph	44.82	44.83
Facility Percent of Base FFS	58.96	44.06
Facility Level of Service	C	D
Facility Auto Traveler Perception Score	2.46	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.40	C	3.25	F
Bicycle Facility LOS Score / LOS	2.68	C	1.50	A
Transit Facility LOS Score / LOS	3.56	D	2.07	B

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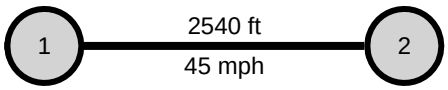
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never		never	never		
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.23			39.93		
1	Running Speed, mph	43.05			43.37		
1	Through Delay, s/veh	7.29			13.46		
1	Travel Time, s	47.52			53.39		
1	Travel Speed, mph	36.45			32.44		
1	Stop Rate, stops/veh	0.46			0.56		
1	Spatial Stop Rate, stops/mi	0.95			1.17		
1	Through vol/cap Ratio	0.49			0.41		
1	Percent of Base FFS	81.35			71.73		
1	Level of Service	A			B		
1	Auto Traveler Perception Score	2.28			2.32		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.48		C	3.45		C
1	Bicycle Segment LOS Score / LOS	2.53		B	1.89		A
1	Transit Segment LOS Score / LOS	3.04		C	3.25		C

Facility Output Data	Southbound		Northbound	
Facility Travel Time, s	47.52		53.39	
Facility Travel Speed, mph	36.45		32.44	
Facility Base Free Flow Speed, mph	44.80		45.22	
Facility Percent of Base FFS	81.35		71.73	
Facility Level of Service	A		B	
Facility Auto Traveler Perception Score	2.28		2.32	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.48	C	3.45	C
Bicycle Facility LOS Score / LOS	2.53	C	1.89	A
Transit Facility LOS Score / LOS	3.04	C	3.25	C

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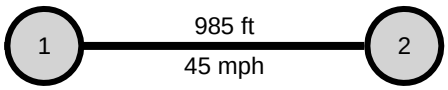
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	35	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h			never	never		
1	Base Free-Flow Speed, mph	45.33			40.66		
1	Running Time, s	17.10			20.19		
1	Running Speed, mph	39.28			33.27		
1	Through Delay, s/veh	17.06			14.19		
1	Travel Time, s	34.16			34.38		
1	Travel Speed, mph	22.43			20.13		
1	Stop Rate, stops/veh	0.52			0.53		
1	Spatial Stop Rate, stops/mi	2.79			2.82		
1	Through vol/cap Ratio	0.67			0.48		
1	Percent of Base FFS	49.48			49.51		
1	Level of Service	D			D		
1	Auto Traveler Perception Score	2.81			2.58		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.91		D	3.52		D
1	Bicycle Segment LOS Score / LOS	2.88		C	2.61		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	34.16	34.38
Facility Travel Speed, mph	19.66	19.54
Facility Base Free Flow Speed, mph	45.33	40.66
Facility Percent of Base FFS	43.38	48.05
Facility Level of Service	D	D
Facility Auto Traveler Perception Score	2.81	2.58

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.91	D	3.52	D
Bicycle Facility LOS Score / LOS	2.88	C	2.61	C
Transit Facility LOS Score / LOS				

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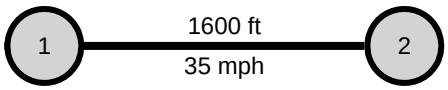
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	35	1	2	1600	1600	72	60	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h					never	
1	Shared Lane Spillback Time, h				never		
1	Base Free-Flow Speed, mph	40.64			41.19		
1	Running Time, s	32.97			29.82		
1	Running Speed, mph	33.09			36.59		
1	Through Delay, s/veh	16.83			9.63		
1	Travel Time, s	49.80			39.44		
1	Travel Speed, mph	21.91			27.66		
1	Stop Rate, stops/veh	0.54			0.37		
1	Spatial Stop Rate, stops/mi	1.77			1.23		
1	Through vol/cap Ratio	0.56			0.51		
1	Percent of Base FFS	53.90			67.16		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.63			2.54		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.63		E	3.50		D
1	Bicycle Segment LOS Score / LOS	2.45		B	1.82		A
1	Transit Segment LOS Score / LOS	3.99		D	3.60		D

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	49.80	39.44
Facility Travel Speed, mph	21.91	27.66
Facility Base Free Flow Speed, mph	40.64	41.19
Facility Percent of Base FFS	53.90	67.16
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.63	2.54

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.63	E	3.50	D
Bicycle Facility LOS Score / LOS	2.45	C	1.82	A
Transit Facility LOS Score / LOS	3.99	D	3.60	D

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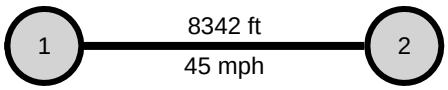
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never					
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	126.69			126.92		
1	Running Speed, mph	44.90			44.81		
1	Through Delay, s/veh	1.05			12.56		
1	Travel Time, s	127.73			139.47		
1	Travel Speed, mph	44.53			40.78		
1	Stop Rate, stops/veh	0.36			0.55		
1	Spatial Stop Rate, stops/mi	0.23			0.35		
1	Through vol/cap Ratio	0.32			0.38		
1	Percent of Base FFS	97.39			89.18		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.56		A	1.60		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	127.73	139.47
Facility Travel Speed, mph	44.53	40.78
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	97.39	89.18
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.40

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.56	A	1.60	A
Transit Facility LOS Score / LOS				

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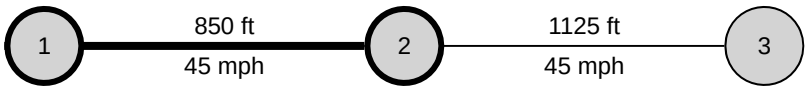
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	110	90	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.59			44.80		
1	Running Time, s	15.32			15.41		
1	Running Speed, mph	37.83			37.61		
1	Through Delay, s/veh	4.99			19.19		
1	Travel Time, s	20.31			34.60		
1	Travel Speed, mph	28.54			16.75		
1	Stop Rate, stops/veh	0.24			0.64		
1	Spatial Stop Rate, stops/mi	1.47			3.95		
1	Through vol/cap Ratio	0.60			0.48		
1	Percent of Base FFS	62.60			37.39		
1	Level of Service	C			E		
1	Auto Traveler Perception Score	2.58			2.78		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.15		C	3.93		D
1	Bicycle Segment LOS Score / LOS	2.45		B	2.09		B
1	Transit Segment LOS Score / LOS	3.10		C	3.20		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	68.72	56.68
Facility Travel Speed, mph	19.60	23.76
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	42.90	52.41
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.59	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.89	C	3.39	C
Bicycle Facility LOS Score / LOS	2.94	C	2.60	C
Transit Facility LOS Score / LOS	3.22	C	4.16	D

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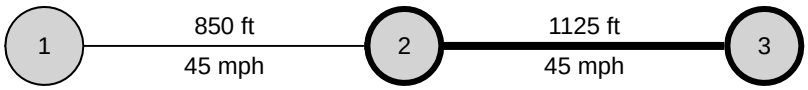
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	95	115	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h		never	0.02		never	
2	Shared Lane Spillback Time, h	never		0.42	never		
2	Base Free-Flow Speed, mph	45.76			45.74		
2	Running Time, s	19.07			18.82		
2	Running Speed, mph	40.23			40.77		
2	Through Delay, s/veh	29.34			3.26		
2	Travel Time, s	48.41			22.08		
2	Travel Speed, mph	15.85			34.74		
2	Stop Rate, stops/veh	0.62			0.19		
2	Spatial Stop Rate, stops/mi	2.90			0.89		
2	Through vol/cap Ratio	0.46			0.28		
2	Percent of Base FFS	34.63			75.95		
2	Level of Service	E			B		
2	Auto Traveler Perception Score	2.60			2.27		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.69		B	2.97		C
2	Bicycle Segment LOS Score / LOS	3.32		C	2.99		C
2	Transit Segment LOS Score / LOS	3.31		C	4.88		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	68.72	56.68
Facility Travel Speed, mph	19.60	23.76
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	42.90	52.41
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.59	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.89	C	3.39	C
Bicycle Facility LOS Score / LOS	2.94	C	2.60	C
Transit Facility LOS Score / LOS	3.22	C	4.16	D

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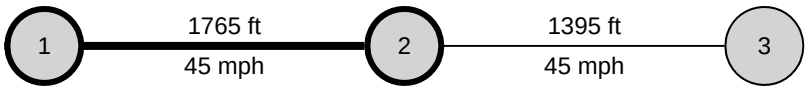
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	85	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h					never	
1	Shared Lane Spillback Time, h				never		
1	Base Free-Flow Speed, mph	45.05			45.07		
1	Running Time, s	28.24			28.22		
1	Running Speed, mph	42.61			42.64		
1	Through Delay, s/veh	8.26			14.60		
1	Travel Time, s	36.51			42.83		
1	Travel Speed, mph	32.96			28.10		
1	Stop Rate, stops/veh	0.53			0.42		
1	Spatial Stop Rate, stops/mi	1.58			1.27		
1	Through vol/cap Ratio	0.55			0.25		
1	Percent of Base FFS	73.17			62.34		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.60			2.55		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.39		B	3.43		C
1	Bicycle Segment LOS Score / LOS	2.14		B	2.56		B
1	Transit Segment LOS Score / LOS	3.25		C	3.27		C

Facility Output Data	**Northbound**	**Southbound**
Facility Travel Time, s	78.28	68.94
Facility Travel Speed, mph	27.52	31.25
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	60.88	69.12
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.59	2.45

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.64	C	3.47	F
Bicycle Facility LOS Score / LOS	2.09	B	2.47	C
Transit Facility LOS Score / LOS	3.29	C	3.57	D

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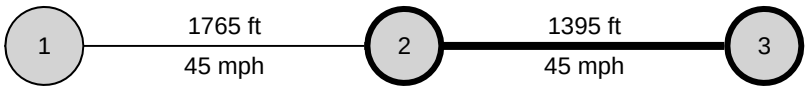
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	75	75	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h		never				
2	Shared Lane Spillback Time, h	never					
2	Base Free-Flow Speed, mph	45.42			45.40		
2	Running Time, s	22.67			22.76		
2	Running Speed, mph	41.95			41.79		
2	Through Delay, s/veh	19.10			3.35		
2	Travel Time, s	41.77			26.11		
2	Travel Speed, mph	22.77			36.43		
2	Stop Rate, stops/veh	0.74			0.34		
2	Spatial Stop Rate, stops/mi	2.78			1.28		
2	Through vol/cap Ratio	0.48			0.36		
2	Percent of Base FFS	50.14			80.25		
2	Level of Service	C			A		
2	Auto Traveler Perception Score	2.58			2.33		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.97		C	3.52		F
2	Bicycle Segment LOS Score / LOS	2.03		B	2.36		B
2	Transit Segment LOS Score / LOS	3.35		C	3.95		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	78.28	68.94
Facility Travel Speed, mph	27.52	31.25
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	60.88	69.12
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.59	2.45

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.64	C	3.47	F
Bicycle Facility LOS Score / LOS	2.09	B	2.47	C
Transit Facility LOS Score / LOS	3.29	C	3.57	D

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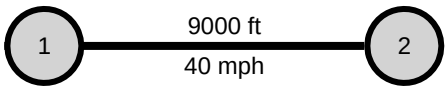
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	60	70	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		never
1	Base Free-Flow Speed, mph	42.40			43.15		
1	Running Time, s	156.78			146.55		
1	Running Speed, mph	39.14			41.87		
1	Through Delay, s/veh	24.53			33.52		
1	Travel Time, s	181.30			180.06		
1	Travel Speed, mph	33.85			34.08		
1	Stop Rate, stops/veh	0.53			0.67		
1	Spatial Stop Rate, stops/mi	0.31			0.39		
1	Through vol/cap Ratio	0.03			0.26		
1	Percent of Base FFS	79.83			78.97		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.19			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.90		C	2.75		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	181.30	180.06
Facility Travel Speed, mph	33.85	34.08
Facility Base Free Flow Speed, mph	42.40	43.15
Facility Percent of Base FFS	79.83	78.97
Facility Level of Service	B	B
Facility Auto Traveler Perception Score	2.19	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.90	C	2.75	C
Transit Facility LOS Score / LOS				

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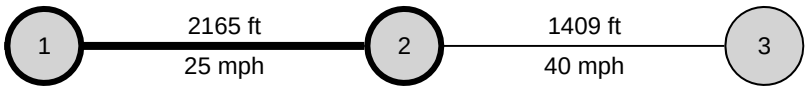
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	LOVR/Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	110	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h	never	never			never	
1	Shared Lane Spillback Time, h	never					never
1	Base Free-Flow Speed, mph	36.52			40.73		
1	Running Time, s	43.61			39.67		
1	Running Speed, mph	33.85			37.21		
1	Through Delay, s/veh	20.41			27.67		
1	Travel Time, s	64.02			67.34		
1	Travel Speed, mph	23.06			21.92		
1	Stop Rate, stops/veh	0.78			0.66		
1	Spatial Stop Rate, stops/mi	1.91			1.60		
1	Through vol/cap Ratio	0.86			0.18		
1	Percent of Base FFS	63.13			53.82		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.43			2.38		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.87		F	4.03		F
1	Bicycle Segment LOS Score / LOS	3.48		C	2.32		B
1	Transit Segment LOS Score / LOS	3.20		C	3.13		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	112.36	114.89
Facility Travel Speed, mph	21.69	21.21
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	55.72	54.61
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.48	2.45

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.61	F	3.80	F
Bicycle Facility LOS Score / LOS	3.17	C	2.23	B
Transit Facility LOS Score / LOS	3.41	C	3.34	C

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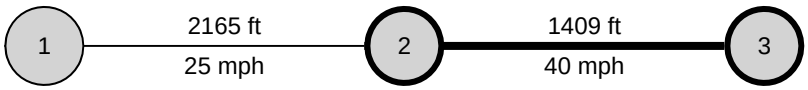
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	76	70	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h	never	never			never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	43.30			36.25		
2	Running Time, s	25.88			29.41		
2	Running Speed, mph	37.11			32.66		
2	Through Delay, s/veh	22.46			18.14		
2	Travel Time, s	48.34			47.56		
2	Travel Speed, mph	19.87			20.20		
2	Stop Rate, stops/veh	0.72			0.74		
2	Spatial Stop Rate, stops/mi	2.68			2.78		
2	Through vol/cap Ratio	0.81			0.52		
2	Percent of Base FFS	45.90			55.72		
2	Level of Service	D			C		
2	Auto Traveler Perception Score	2.56			2.57		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	4.22		D	3.45		C
2	Bicycle Segment LOS Score / LOS	2.68		B	2.10		B
2	Transit Segment LOS Score / LOS	3.72		D	3.67		D

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	112.36	114.89
Facility Travel Speed, mph	21.69	21.21
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	55.72	54.61
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.48	2.45

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.61	F	3.80	F
Bicycle Facility LOS Score / LOS	3.17	C	2.23	B
Transit Facility LOS Score / LOS	3.41	C	3.34	C

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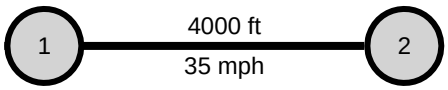
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	12. Froom Ranch from LOVR to	Analysis Year	2019	System Cycle Length, s	120
Intersections	Froom Ranch Way/Dalidio Drive	Froom Ranch Way/LOVR		Analysis Period	1> 7:00
Project Description	Froom Ranch TIS				



Basic Segment Information (Froom Ranch Way between LOVR and Dalido Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	35	35	1	1	4000	4000	120	100	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h				never		never
1	Base Free-Flow Speed, mph	41.08			41.09		
1	Running Time, s	67.41			67.54		
1	Running Speed, mph	40.46			40.38		
1	Through Delay, s/veh	20.61			4.04		
1	Travel Time, s	88.02			71.58		
1	Travel Speed, mph	30.98			38.10		
1	Stop Rate, stops/veh	0.84			0.63		
1	Spatial Stop Rate, stops/mi	1.11			0.83		
1	Through vol/cap Ratio	0.04			0.14		
1	Percent of Base FFS	75.42			92.73		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.31			2.26		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.33		B	2.34		B
1	Bicycle Segment LOS Score / LOS	0.83		A	1.49		A
1	Transit Segment LOS Score / LOS	0.80		A	0.29		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	88.02	71.58
Facility Travel Speed, mph	30.98	38.10
Facility Base Free Flow Speed, mph	41.08	41.09
Facility Percent of Base FFS	75.42	92.73
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.31	2.26

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.33	C	2.34	C
Bicycle Facility LOS Score / LOS	0.83	A	1.49	A
Transit Facility LOS Score / LOS	0.80	A	0.29	A

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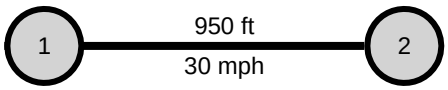
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	2
Analyst		Analysis Date	1/14/2019	Number of Segments	1
Jurisdiction		Time Period		Number of Iterations	15
File Name	13. Collector A from LOVR to Co	Analysis Year	2019	System Cycle Length, s	120
Intersections	LOVR/Collector A	Collector A/Collector B		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan TIS				



Basic Segment Information (Commercial Collector A)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	30	30	1	1	950	950	50	50	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	39.37			39.37		
1	Running Time, s	19.64			19.67		
1	Running Speed, mph	32.98			32.93		
1	Through Delay, s/veh	1.77			0.00		
1	Travel Time, s	21.41			19.67		
1	Travel Speed, mph	30.25			32.93		
1	Stop Rate, stops/veh	0.09			0.00		
1	Spatial Stop Rate, stops/mi	0.50			0.00		
1	Through vol/cap Ratio	0.08			0.00		
1	Percent of Base FFS	76.84			83.65		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.42			2.34		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.18		B	2.78		C
1	Bicycle Segment LOS Score / LOS	0.93		A	0.48		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	21.41	19.67
Facility Travel Speed, mph	30.25	32.93
Facility Base Free Flow Speed, mph	39.37	39.37
Facility Percent of Base FFS	76.84	83.65
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.42	2.34

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.18	B	2.78	C
Bicycle Facility LOS Score / LOS	0.93	A	0.48	A
Transit Facility LOS Score / LOS				

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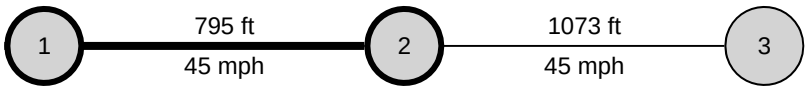
Multimodal Roadway Segment Analysis Sheets - Near Term Plus Project Scenario 2 Conditions PM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.40			14.58		
1	Running Speed, mph	37.64			37.19		
1	Through Delay, s/veh	3.18			3.39		
1	Travel Time, s	17.58			17.96		
1	Travel Speed, mph	30.83			30.17		
1	Stop Rate, stops/veh	0.26			0.12		
1	Spatial Stop Rate, stops/mi	1.71			0.79		
1	Through vol/cap Ratio	0.41			0.47		
1	Percent of Base FFS	68.52			67.09		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.40			2.47		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.61		D	3.97		D
1	Bicycle Segment LOS Score / LOS	2.10		B	2.19		B
1	Transit Segment LOS Score / LOS	3.61		D	2.78		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	38.22	46.17
Facility Travel Speed, mph	33.32	27.59
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	73.30	60.70
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.28	2.61

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.56	D	4.13	D
Bicycle Facility LOS Score / LOS	1.99	A	1.89	A
Transit Facility LOS Score / LOS	2.89	C	1.97	A

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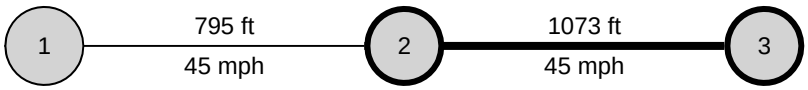
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never					
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.25			18.50		
2	Running Speed, mph	40.08			39.55		
2	Through Delay, s/veh	2.39			9.71		
2	Travel Time, s	20.64			28.20		
2	Travel Speed, mph	35.44			25.94		
2	Stop Rate, stops/veh	0.07			0.48		
2	Spatial Stop Rate, stops/mi	0.36			2.34		
2	Through vol/cap Ratio	0.39			0.72		
2	Percent of Base FFS	77.37			56.63		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.19			2.73		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.51		D	4.24		D
2	Bicycle Segment LOS Score / LOS	1.92		A	1.67		A
2	Transit Segment LOS Score / LOS	2.35		B	1.37		A

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	38.22	46.17
Facility Travel Speed, mph	33.32	27.59
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	73.30	60.70
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.28	2.61

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.56	D	4.13	D
Bicycle Facility LOS Score / LOS	1.99	A	1.89	A
Transit Facility LOS Score / LOS	2.89	C	1.97	A

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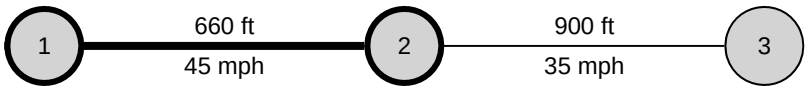
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h	never	never			never	
1	Shared Lane Spillback Time, h	never		never			
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.73			12.71		
1	Running Speed, mph	35.36			35.40		
1	Through Delay, s/veh	32.10			3.00		
1	Travel Time, s	44.83			15.71		
1	Travel Speed, mph	10.04			28.64		
1	Stop Rate, stops/veh	0.82			0.11		
1	Spatial Stop Rate, stops/mi	6.54			0.86		
1	Through vol/cap Ratio	0.91			0.37		
1	Percent of Base FFS	21.99			62.85		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	3.26			2.27		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.51		D	3.46		C
1	Bicycle Segment LOS Score / LOS	2.35		B	1.72		A
1	Transit Segment LOS Score / LOS	2.88		C	2.92		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	111.04	48.20
Facility Travel Speed, mph	9.58	22.07
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	22.46	48.31
Facility Level of Service	F	D
Facility Auto Traveler Perception Score	3.15	2.55

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.26	C	3.26	C
Bicycle Facility LOS Score / LOS	2.27	C	1.82	A
Transit Facility LOS Score / LOS	2.62	C	2.92	C

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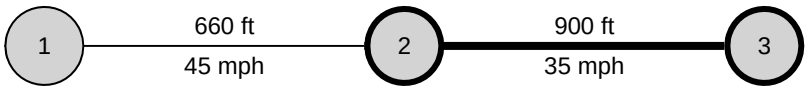
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h				never	never	
2	Shared Lane Spillback Time, h				never		
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.06			15.85		
2	Running Speed, mph	32.20			38.72		
2	Through Delay, s/veh	47.15			16.64		
2	Travel Time, s	66.21			32.49		
2	Travel Speed, mph	9.27			18.89		
2	Stop Rate, stops/veh	0.96			0.69		
2	Spatial Stop Rate, stops/mi	5.61			4.06		
2	Through vol/cap Ratio	0.93			0.69		
2	Percent of Base FFS	22.78			41.28		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	3.08			2.80		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.08		C	3.12		C
2	Bicycle Segment LOS Score / LOS	2.21		B	1.89		A
2	Transit Segment LOS Score / LOS	2.43		B	2.92		C

Facility Output Data	**Southbound**		**Northbound**	
Facility Travel Time, s	111.04		48.20	
Facility Travel Speed, mph	9.58		22.07	
Facility Base Free Flow Speed, mph	42.64		45.68	
Facility Percent of Base FFS	22.46		48.31	
Facility Level of Service	F		D	
Facility Auto Traveler Perception Score	3.15		2.55	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.26	C	3.26	C
Bicycle Facility LOS Score / LOS	2.27	C	1.82	A
Transit Facility LOS Score / LOS	2.62	C	2.92	C

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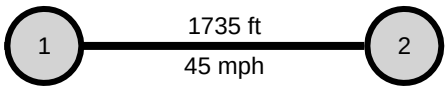
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 4:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	107	115	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h	never	never	never	never	never	
1	Shared Lane Spillback Time, h	never		never	never		
1	Base Free-Flow Speed, mph	44.83			44.82		
1	Running Time, s	27.80			27.98		
1	Running Speed, mph	42.55			42.28		
1	Through Delay, s/veh	35.05			43.59		
1	Travel Time, s	62.85			71.57		
1	Travel Speed, mph	18.82			16.53		
1	Stop Rate, stops/veh	0.85			0.90		
1	Spatial Stop Rate, stops/mi	2.58			2.74		
1	Through vol/cap Ratio	0.82			0.91		
1	Percent of Base FFS	41.99			36.88		
1	Level of Service	D			E		
1	Auto Traveler Perception Score	2.54			2.57		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.53		D	3.72		D
1	Bicycle Segment LOS Score / LOS	2.67		B	1.85		A
1	Transit Segment LOS Score / LOS	3.79		D	2.17		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	62.85	71.57
Facility Travel Speed, mph	18.82	16.53
Facility Base Free Flow Speed, mph	44.83	44.82
Facility Percent of Base FFS	41.99	36.88
Facility Level of Service	D	E
Facility Auto Traveler Perception Score	2.54	2.57

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.53	D	3.72	D
Bicycle Facility LOS Score / LOS	2.67	C	1.85	A
Transit Facility LOS Score / LOS	3.79	D	2.17	B

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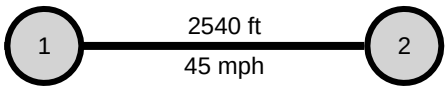
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never		never	never		
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.56			40.44		
1	Running Speed, mph	42.70			42.82		
1	Through Delay, s/veh	10.72			22.19		
1	Travel Time, s	51.28			62.63		
1	Travel Speed, mph	33.77			27.65		
1	Stop Rate, stops/veh	0.56			0.70		
1	Spatial Stop Rate, stops/mi	1.16			1.45		
1	Through vol/cap Ratio	0.67			0.63		
1	Percent of Base FFS	75.38			61.14		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.31			2.36		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.70		D	3.54		D
1	Bicycle Segment LOS Score / LOS	2.67		B	2.07		B
1	Transit Segment LOS Score / LOS	3.15		C	3.43		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	51.28	62.63
Facility Travel Speed, mph	33.77	27.65
Facility Base Free Flow Speed, mph	44.80	45.22
Facility Percent of Base FFS	75.38	61.14
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.36

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.70	D	3.54	D
Bicycle Facility LOS Score / LOS	2.67	C	2.07	B
Transit Facility LOS Score / LOS	3.15	C	3.43	C

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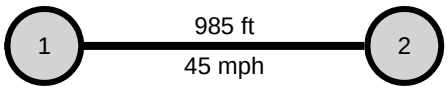
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h			never	never		
1	Base Free-Flow Speed, mph	45.33			45.36		
1	Running Time, s	17.06			17.19		
1	Running Speed, mph	39.36			39.08		
1	Through Delay, s/veh	21.71			11.76		
1	Travel Time, s	38.77			28.95		
1	Travel Speed, mph	17.32			23.20		
1	Stop Rate, stops/veh	0.67			0.38		
1	Spatial Stop Rate, stops/mi	3.62			2.06		
1	Through vol/cap Ratio	0.52			0.70		
1	Percent of Base FFS	38.21			51.15		
1	Level of Service	E			C		
1	Auto Traveler Perception Score	2.96			2.46		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.66		D	3.89		D
1	Bicycle Segment LOS Score / LOS	2.84		C	2.98		C
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound		Northbound	
Facility Travel Time, s	38.77		28.95	
Facility Travel Speed, mph	17.32		23.20	
Facility Base Free Flow Speed, mph	45.33		45.36	
Facility Percent of Base FFS	38.21		51.15	
Facility Level of Service	E		C	
Facility Auto Traveler Perception Score	2.96		2.46	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.66	D	3.89	D
Bicycle Facility LOS Score / LOS	2.84	C	2.98	C
Transit Facility LOS Score / LOS				

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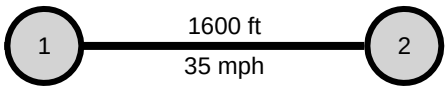
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	45	1	2	1600	1600	105	60	540	540	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h					never	
1	Shared Lane Spillback Time, h				never		
1	Base Free-Flow Speed, mph	40.78			45.77		
1	Running Time, s	31.19			25.96		
1	Running Speed, mph	34.97			42.02		
1	Through Delay, s/veh	17.93			9.34		
1	Travel Time, s	49.12			35.30		
1	Travel Speed, mph	22.21			30.90		
1	Stop Rate, stops/veh	0.63			0.33		
1	Spatial Stop Rate, stops/mi	2.07			1.09		
1	Through vol/cap Ratio	0.52			0.44		
1	Percent of Base FFS	54.47			67.51		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.69			2.52		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.00		D	3.42		C
1	Bicycle Segment LOS Score / LOS	2.47		B	2.01		B
1	Transit Segment LOS Score / LOS	3.54		D	3.37		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	49.12	35.30
Facility Travel Speed, mph	22.21	30.90
Facility Base Free Flow Speed, mph	40.78	45.77
Facility Percent of Base FFS	54.47	67.51
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.69	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.00	D	3.42	C
Bicycle Facility LOS Score / LOS	2.47	C	2.01	B
Transit Facility LOS Score / LOS	3.54	D	3.37	C

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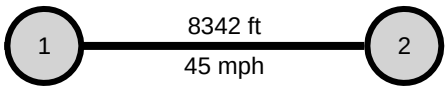
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never					
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	125.41			126.22		
1	Running Speed, mph	45.35			45.06		
1	Through Delay, s/veh	0.89			11.51		
1	Travel Time, s	126.30			137.73		
1	Travel Speed, mph	45.03			41.30		
1	Stop Rate, stops/veh	0.36			0.60		
1	Spatial Stop Rate, stops/mi	0.23			0.38		
1	Through vol/cap Ratio	0.13			0.27		
1	Percent of Base FFS	98.50			90.31		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	0.72		A	1.49		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	126.30	137.73
Facility Travel Speed, mph	45.03	41.30
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	98.50	90.31
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.40

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	0.72	A	1.49	A
Transit Facility LOS Score / LOS				

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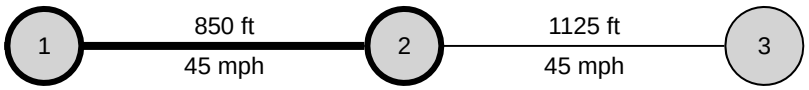
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	100	95	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.60			44.78		
1	Running Time, s	15.13			16.71		
1	Running Speed, mph	38.30			34.69		
1	Through Delay, s/veh	10.81			18.74		
1	Travel Time, s	25.95			35.44		
1	Travel Speed, mph	22.34			16.35		
1	Stop Rate, stops/veh	0.23			0.55		
1	Spatial Stop Rate, stops/mi	1.42			3.42		
1	Through vol/cap Ratio	0.48			0.67		
1	Percent of Base FFS	48.98			36.51		
1	Level of Service	D			E		
1	Auto Traveler Perception Score	2.58			2.68		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.13		C	4.61		E
1	Bicycle Segment LOS Score / LOS	2.34		B	2.46		B
1	Transit Segment LOS Score / LOS	2.11		B	5.39		F

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	91.17	66.75
Facility Travel Speed, mph	14.77	20.17
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	32.33	44.50
Facility Level of Service	E	D
Facility Auto Traveler Perception Score	2.65	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.06	C	3.93	D
Bicycle Facility LOS Score / LOS	2.99	C	2.97	C
Transit Facility LOS Score / LOS	3.91	D	5.20	F

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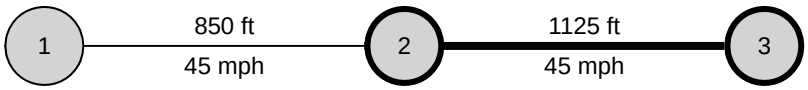
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	85	75	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h		never	0.05		never	
2	Shared Lane Spillback Time, h	never		0.34	never		
2	Base Free-Flow Speed, mph	45.76			45.77		
2	Running Time, s	19.01			19.16		
2	Running Speed, mph	40.35			40.04		
2	Through Delay, s/veh	46.21			12.15		
2	Travel Time, s	65.22			31.31		
2	Travel Speed, mph	11.76			24.50		
2	Stop Rate, stops/veh	0.75			0.35		
2	Spatial Stop Rate, stops/mi	3.53			1.67		
2	Through vol/cap Ratio	0.70			0.60		
2	Percent of Base FFS	25.70			53.53		
2	Level of Service	F			C		
2	Auto Traveler Perception Score	2.70			2.39		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.01		C	3.41		C
2	Bicycle Segment LOS Score / LOS	3.49		C	3.35		C
2	Transit Segment LOS Score / LOS	5.27		F	5.06		F

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	91.17	66.75
Facility Travel Speed, mph	14.77	20.17
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	32.33	44.50
Facility Level of Service	E	D
Facility Auto Traveler Perception Score	2.65	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.06	C	3.93	D
Bicycle Facility LOS Score / LOS	2.99	C	2.97	C
Transit Facility LOS Score / LOS	3.91	D	5.20	F

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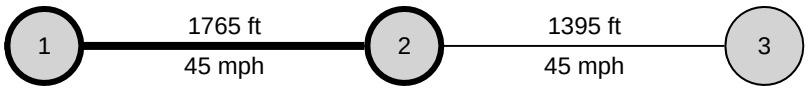
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	115	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h				0.06	never	
1	Shared Lane Spillback Time, h				0.77		
1	Base Free-Flow Speed, mph	45.05			45.05		
1	Running Time, s	28.70			28.62		
1	Running Speed, mph	41.93			42.05		
1	Through Delay, s/veh	14.41			30.43		
1	Travel Time, s	43.10			59.05		
1	Travel Speed, mph	27.92			20.38		
1	Stop Rate, stops/veh	0.56			0.62		
1	Spatial Stop Rate, stops/mi	1.67			1.85		
1	Through vol/cap Ratio	0.87			0.58		
1	Percent of Base FFS	61.98			45.24		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.62			2.65		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.20		C	3.98		D
1	Bicycle Segment LOS Score / LOS	2.54		B	3.00		C
1	Transit Segment LOS Score / LOS	3.49		C	3.83		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	83.75	88.40
Facility Travel Speed, mph	25.73	24.37
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	56.87	53.89
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.58	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.35	C	4.34	F
Bicycle Facility LOS Score / LOS	2.42	C	2.73	C
Transit Facility LOS Score / LOS	4.19	D	4.03	D

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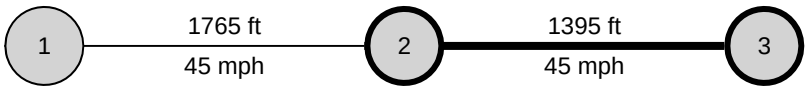
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h	never	never				
2	Shared Lane Spillback Time, h	never					
2	Base Free-Flow Speed, mph	45.48			45.46		
2	Running Time, s	23.13			22.93		
2	Running Speed, mph	41.13			41.47		
2	Through Delay, s/veh	17.51			6.42		
2	Travel Time, s	40.64			29.35		
2	Travel Speed, mph	23.40			32.41		
2	Stop Rate, stops/veh	0.66			0.40		
2	Spatial Stop Rate, stops/mi	2.49			1.53		
2	Through vol/cap Ratio	0.61			0.55		
2	Percent of Base FFS	51.46			71.29		
2	Level of Service	C			B		
2	Auto Traveler Perception Score	2.53			2.37		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.55		D	4.79		F
2	Bicycle Segment LOS Score / LOS	2.26		B	2.39		B
2	Transit Segment LOS Score / LOS	5.09		F	4.29		E

Facility Output Data	**Northbound**	**Southbound**
Facility Travel Time, s	83.75	88.40
Facility Travel Speed, mph	25.73	24.37
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	56.87	53.89
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.58	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.35	C	4.34	F
Bicycle Facility LOS Score / LOS	2.42	C	2.73	C
Transit Facility LOS Score / LOS	4.19	D	4.03	D

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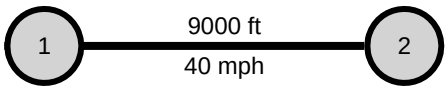
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	135	90	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		never
1	Base Free-Flow Speed, mph	42.38			43.15		
1	Running Time, s	155.26			146.30		
1	Running Speed, mph	39.52			41.94		
1	Through Delay, s/veh	26.71			33.47		
1	Travel Time, s	181.98			179.77		
1	Travel Speed, mph	33.72			34.13		
1	Stop Rate, stops/veh	0.59			0.74		
1	Spatial Stop Rate, stops/mi	0.35			0.43		
1	Through vol/cap Ratio	0.03			0.44		
1	Percent of Base FFS	79.56			79.10		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.19			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.99		C	2.72		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	181.98	179.77
Facility Travel Speed, mph	33.72	34.13
Facility Base Free Flow Speed, mph	42.38	43.15
Facility Percent of Base FFS	79.56	79.10
Facility Level of Service	B	B
Facility Auto Traveler Perception Score	2.19	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.99	C	2.72	C
Transit Facility LOS Score / LOS				

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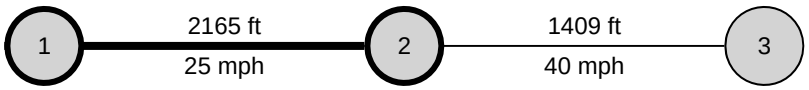
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	LOVR/Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	115	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	0.04
1	Shared Lane Spillback Time, h	never					0.27
1	Base Free-Flow Speed, mph	36.62			40.93		
1	Running Time, s	42.91			41.73		
1	Running Speed, mph	34.40			35.37		
1	Through Delay, s/veh	15.52			30.07		
1	Travel Time, s	58.43			71.80		
1	Travel Speed, mph	25.26			20.56		
1	Stop Rate, stops/veh	0.69			0.70		
1	Spatial Stop Rate, stops/mi	1.68			1.71		
1	Through vol/cap Ratio	0.51			0.33		
1	Percent of Base FFS	68.99			50.24		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.39			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.79		C	4.69		E
1	Bicycle Segment LOS Score / LOS	3.31		C	2.57		B
1	Transit Segment LOS Score / LOS	2.76		C	3.44		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	114.60	120.96
Facility Travel Speed, mph	21.26	20.14
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	54.33	51.45
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.45	2.48

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.15	C	4.16	D
Bicycle Facility LOS Score / LOS	3.01	C	2.53	C
Transit Facility LOS Score / LOS	3.29	C	3.46	C

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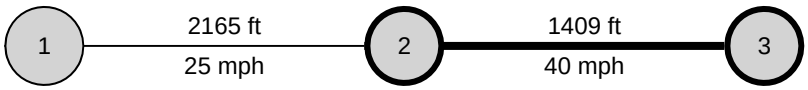
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	90	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never		never	never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	43.76			36.71		
2	Running Time, s	25.22			30.05		
2	Running Speed, mph	38.09			31.97		
2	Through Delay, s/veh	30.95			19.12		
2	Travel Time, s	56.17			49.17		
2	Travel Speed, mph	17.10			19.54		
2	Stop Rate, stops/veh	0.68			0.79		
2	Spatial Stop Rate, stops/mi	2.57			2.94		
2	Through vol/cap Ratio	0.64			0.77		
2	Percent of Base FFS	39.09			53.23		
2	Level of Service	E			C		
2	Auto Traveler Perception Score	2.54			2.60		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.70		D	3.35		C
2	Bicycle Segment LOS Score / LOS	2.55		B	2.46		B
2	Transit Segment LOS Score / LOS	4.10		D	3.49		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	114.60	120.96
Facility Travel Speed, mph	21.26	20.14
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	54.33	51.45
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.45	2.48

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.15	C	4.16	F
Bicycle Facility LOS Score / LOS	3.01	C	2.53	C
Transit Facility LOS Score / LOS	3.29	C	3.46	C

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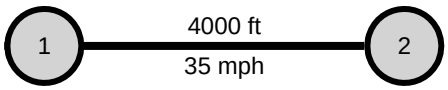
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	12. Froom Ranch from LOVR to	Analysis Year	2019	System Cycle Length, s	120
Intersections	Froom Ranch Way/Dalidio Drive	Froom Ranch Way/LOVR		Analysis Period	1> 7:00
Project Description	Froom Ranch TIS				



Basic Segment Information (Froom Ranch Way between LOVR and Dalido Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	35	35	1	1	4000	4000	120	100	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h				never		never
1	Base Free-Flow Speed, mph	41.08			41.09		
1	Running Time, s	67.65			68.14		
1	Running Speed, mph	40.32			40.02		
1	Through Delay, s/veh	29.75			3.53		
1	Travel Time, s	97.40			71.67		
1	Travel Speed, mph	28.00			38.05		
1	Stop Rate, stops/veh	0.82			0.15		
1	Spatial Stop Rate, stops/mi	1.08			0.20		
1	Through vol/cap Ratio	0.10			0.26		
1	Percent of Base FFS	68.16			92.62		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.30			2.17		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.90		C	2.54		B
1	Bicycle Segment LOS Score / LOS	0.43		A	0.65		A
1	Transit Segment LOS Score / LOS	0.99		A	0.28		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	97.40	71.67
Facility Travel Speed, mph	28.00	38.05
Facility Base Free Flow Speed, mph	41.08	41.09
Facility Percent of Base FFS	68.16	92.62
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.30	2.17

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.90	C	2.54	C
Bicycle Facility LOS Score / LOS	0.43	A	0.65	A
Transit Facility LOS Score / LOS	0.99	A	0.28	A

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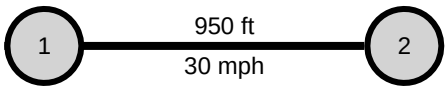
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	PM Peak Period	Number of Iterations	15
File Name	13. Collector A from LOVR to Co	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Collector A	Collector A/Collector B		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan TIS				



Basic Segment Information (Commercial Collector A)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	30	30	1	1	950	950	50	50	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never		never			
1	Base Free-Flow Speed, mph	39.37			39.37		
1	Running Time, s	19.70			19.68		
1	Running Speed, mph	32.88			32.92		
1	Through Delay, s/veh	2.02			0.00		
1	Travel Time, s	21.71			19.68		
1	Travel Speed, mph	29.83			32.92		
1	Stop Rate, stops/veh	0.10			0.00		
1	Spatial Stop Rate, stops/mi	0.55			0.00		
1	Through vol/cap Ratio	0.13			0.00		
1	Percent of Base FFS	75.76			83.61		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.43			2.34		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.54		B	2.85		C
1	Bicycle Segment LOS Score / LOS	2.57		B	2.50		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	21.71	19.68
Facility Travel Speed, mph	29.83	32.92
Facility Base Free Flow Speed, mph	39.37	39.37
Facility Percent of Base FFS	75.76	83.61
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.43	2.34

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.54	C	2.85	C
Bicycle Facility LOS Score / LOS	2.57	C	2.50	C
Transit Facility LOS Score / LOS				

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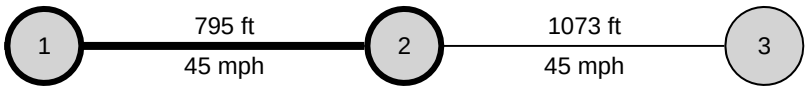
Multimodal Roadway Segment Analysis Sheets - Cumulative (2035) Conditions AM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.47			14.26		
1	Running Speed, mph	37.46			38.02		
1	Through Delay, s/veh	5.02			3.59		
1	Travel Time, s	19.49			17.84		
1	Travel Speed, mph	27.81			30.38		
1	Stop Rate, stops/veh	0.34			0.14		
1	Spatial Stop Rate, stops/mi	2.24			0.92		
1	Through vol/cap Ratio	0.50			0.23		
1	Percent of Base FFS	61.82			67.54		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.49			2.49		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.80		D	3.10		C
1	Bicycle Segment LOS Score / LOS	2.15		B	1.86		A
1	Transit Segment LOS Score / LOS	3.64		D	2.63		B

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	40.30	44.41
Facility Travel Speed, mph	31.61	28.68
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	69.53	63.11
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.77	D	3.35	C
Bicycle Facility LOS Score / LOS	2.07	B	1.63	A
Transit Facility LOS Score / LOS	2.93	C	1.77	A

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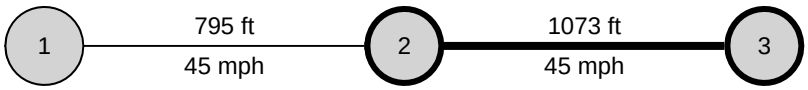
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.40			18.14		
2	Running Speed, mph	39.75			40.34		
2	Through Delay, s/veh	2.40			8.43		
2	Travel Time, s	20.81			26.56		
2	Travel Speed, mph	35.16			27.54		
2	Stop Rate, stops/veh	0.07			0.47		
2	Spatial Stop Rate, stops/mi	0.32			2.30		
2	Through vol/cap Ratio	0.46			0.32		
2	Percent of Base FFS	76.75			60.13		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.19			2.73		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.75		D	3.53		D
2	Bicycle Segment LOS Score / LOS	2.01		B	1.46		A
2	Transit Segment LOS Score / LOS	2.41		B	1.13		A

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	40.30	44.41
Facility Travel Speed, mph	31.61	28.68
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	69.53	63.11
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.77	D	3.35	C
Bicycle Facility LOS Score / LOS	2.07	B	1.63	A
Transit Facility LOS Score / LOS	2.93	C	1.77	A

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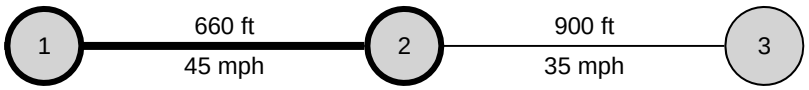
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.82			12.58		
1	Running Speed, mph	35.11			35.78		
1	Through Delay, s/veh	24.53			2.16		
1	Travel Time, s	37.35			14.74		
1	Travel Speed, mph	12.05			30.54		
1	Stop Rate, stops/veh	0.64			0.08		
1	Spatial Stop Rate, stops/mi	5.10			0.62		
1	Through vol/cap Ratio	0.77			0.21		
1	Percent of Base FFS	26.40			67.01		
1	Level of Service	F			B		
1	Auto Traveler Perception Score	2.99			2.23		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.70		D	2.95		C
1	Bicycle Segment LOS Score / LOS	2.43		B	1.50		A
1	Transit Segment LOS Score / LOS	2.67		B	2.81		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	93.05	45.28
Facility Travel Speed, mph	11.43	23.49
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	26.81	51.42
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	3.00	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.49	C	2.84	C
Bicycle Facility LOS Score / LOS	2.38	C	1.58	A
Transit Facility LOS Score / LOS	2.57	C	2.80	C

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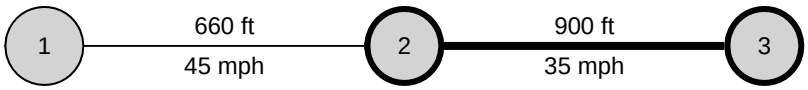
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.32			15.63		
2	Running Speed, mph	31.76			39.26		
2	Through Delay, s/veh	36.38			14.92		
2	Travel Time, s	55.70			30.55		
2	Travel Speed, mph	11.02			20.09		
2	Stop Rate, stops/veh	0.89			0.42		
2	Spatial Stop Rate, stops/mi	5.21			2.46		
2	Through vol/cap Ratio	0.91			0.31		
2	Percent of Base FFS	27.08			43.90		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	3.01			2.52		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.34		C	2.75		C
2	Bicycle Segment LOS Score / LOS	2.34		B	1.63		A
2	Transit Segment LOS Score / LOS	2.49		B	2.79		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	93.05	45.28
Facility Travel Speed, mph	11.43	23.49
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	26.81	51.42
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	3.00	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.49	C	2.84	C
Bicycle Facility LOS Score / LOS	2.38	C	1.58	A
Transit Facility LOS Score / LOS	2.57	C	2.80	C

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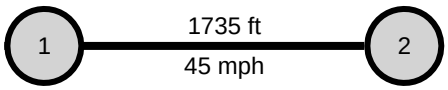
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	115	107	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.82			44.83		
1	Running Time, s	27.70			27.51		
1	Running Speed, mph	42.71			43.00		
1	Through Delay, s/veh	16.39			37.70		
1	Travel Time, s	44.09			65.21		
1	Travel Speed, mph	26.83			18.14		
1	Stop Rate, stops/veh	0.69			0.82		
1	Spatial Stop Rate, stops/mi	2.10			2.50		
1	Through vol/cap Ratio	0.53			0.54		
1	Percent of Base FFS	59.87			40.47		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.46			2.53		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.35		C	3.17		F
1	Bicycle Segment LOS Score / LOS	2.65		B	1.46		A
1	Transit Segment LOS Score / LOS	3.55		D	2.05		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	44.09	65.21
Facility Travel Speed, mph	26.83	18.14
Facility Base Free Flow Speed, mph	44.82	44.83
Facility Percent of Base FFS	59.87	40.47
Facility Level of Service	C	D
Facility Auto Traveler Perception Score	2.46	2.53

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.35	C	3.17	F
Bicycle Facility LOS Score / LOS	2.65	C	1.46	A
Transit Facility LOS Score / LOS	3.55	D	2.05	B

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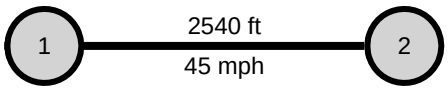
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.33			39.80		
1	Running Speed, mph	42.95			43.51		
1	Through Delay, s/veh	8.81			14.55		
1	Travel Time, s	49.14			54.35		
1	Travel Speed, mph	35.24			31.86		
1	Stop Rate, stops/veh	0.52			0.59		
1	Spatial Stop Rate, stops/mi	1.09			1.22		
1	Through vol/cap Ratio	0.54			0.37		
1	Percent of Base FFS	78.67			70.46		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.30			2.32		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.54		D	3.33		C
1	Bicycle Segment LOS Score / LOS	2.55		B	1.84		A
1	Transit Segment LOS Score / LOS	3.09		C	3.25		C

Facility Output Data	**Southbound**		**Northbound**	
Facility Travel Time, s	49.14		54.35	
Facility Travel Speed, mph	35.24		31.86	
Facility Base Free Flow Speed, mph	44.80		45.22	
Facility Percent of Base FFS	78.67		70.46	
Facility Level of Service	B		B	
Facility Auto Traveler Perception Score	2.30		2.32	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.54	D	3.33	C
Bicycle Facility LOS Score / LOS	2.55	C	1.84	A
Transit Facility LOS Score / LOS	3.09	C	3.25	C

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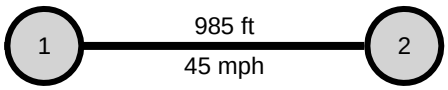
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	35	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.33			40.66		
1	Running Time, s	17.06			20.07		
1	Running Speed, mph	39.38			33.46		
1	Through Delay, s/veh	14.82			16.85		
1	Travel Time, s	31.88			36.92		
1	Travel Speed, mph	22.43			20.13		
1	Stop Rate, stops/veh	0.44			0.62		
1	Spatial Stop Rate, stops/mi	2.36			3.34		
1	Through vol/cap Ratio	0.64			0.41		
1	Percent of Base FFS	49.48			49.51		
1	Level of Service	D			D		
1	Auto Traveler Perception Score	2.74			2.67		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.84		D	3.35		C
1	Bicycle Segment LOS Score / LOS	2.85		C	2.54		B
1	Transit Segment LOS Score / LOS	4.88		E	4.88		E

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	31.88	36.92
Facility Travel Speed, mph	21.07	18.19
Facility Base Free Flow Speed, mph	45.33	40.66
Facility Percent of Base FFS	46.48	44.74
Facility Level of Service	D	D
Facility Auto Traveler Perception Score	2.74	2.67

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.84	D	3.35	C
Bicycle Facility LOS Score / LOS	2.85	C	2.54	C
Transit Facility LOS Score / LOS	4.88	E	4.88	E

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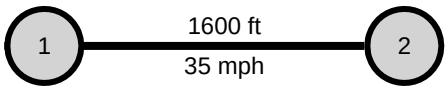
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	35	1	2	1600	1600	72	60	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	40.64			41.19		
1	Running Time, s	32.82			30.05		
1	Running Speed, mph	33.24			36.30		
1	Through Delay, s/veh	24.90			10.46		
1	Travel Time, s	57.72			40.51		
1	Travel Speed, mph	18.90			26.93		
1	Stop Rate, stops/veh	0.80			0.40		
1	Spatial Stop Rate, stops/mi	2.64			1.31		
1	Through vol/cap Ratio	0.88			0.57		
1	Percent of Base FFS	46.50			65.38		
1	Level of Service	D			C		
1	Auto Traveler Perception Score	2.78			2.56		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.61		E	3.68		D
1	Bicycle Segment LOS Score / LOS	2.44		B	1.85		A
1	Transit Segment LOS Score / LOS	4.08		D	3.65		D

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	57.72	40.51
Facility Travel Speed, mph	18.90	26.93
Facility Base Free Flow Speed, mph	40.64	41.19
Facility Percent of Base FFS	46.50	65.38
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.78	2.56

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.61	E	3.68	D
Bicycle Facility LOS Score / LOS	2.44	C	1.85	A
Transit Facility LOS Score / LOS	4.08	D	3.65	D

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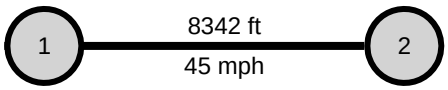
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	127.13			127.78		
1	Running Speed, mph	44.74			44.51		
1	Through Delay, s/veh	1.10			14.16		
1	Travel Time, s	128.24			141.94		
1	Travel Speed, mph	44.35			40.07		
1	Stop Rate, stops/veh	0.36			0.65		
1	Spatial Stop Rate, stops/mi	0.23			0.41		
1	Through vol/cap Ratio	0.38			0.54		
1	Percent of Base FFS	97.01			87.64		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.63		A	1.70		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	128.24	141.94
Facility Travel Speed, mph	44.35	40.07
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	97.01	87.64
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.63	A	1.70	A
Transit Facility LOS Score / LOS				

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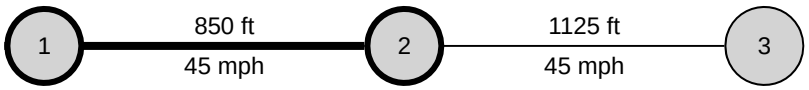
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	110	90	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.59			44.80		
1	Running Time, s	15.31			15.26		
1	Running Speed, mph	37.85			37.98		
1	Through Delay, s/veh	12.76			21.38		
1	Travel Time, s	28.07			36.63		
1	Travel Speed, mph	20.65			15.82		
1	Stop Rate, stops/veh	0.43			0.71		
1	Spatial Stop Rate, stops/mi	2.70			4.43		
1	Through vol/cap Ratio	0.70			0.60		
1	Percent of Base FFS	45.29			35.32		
1	Level of Service	D			E		
1	Auto Traveler Perception Score	2.80			2.86		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.15		C	3.68		D
1	Bicycle Segment LOS Score / LOS	2.46		B	2.01		B
1	Transit Segment LOS Score / LOS	3.21		C	3.16		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	67.76	58.65
Facility Travel Speed, mph	19.87	22.96
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	43.50	50.65
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.65	2.46

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.92	C	3.16	C
Bicycle Facility LOS Score / LOS	2.92	C	2.54	C
Transit Facility LOS Score / LOS	3.20	C	4.13	D

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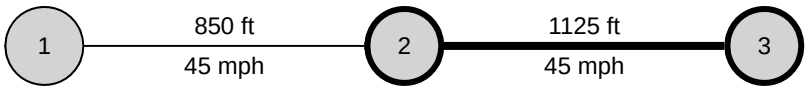
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	95	115	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.76			45.74		
2	Running Time, s	19.09			18.74		
2	Running Speed, mph	40.17			40.93		
2	Through Delay, s/veh	20.60			3.27		
2	Travel Time, s	39.69			22.01		
2	Travel Speed, mph	19.33			34.85		
2	Stop Rate, stops/veh	0.56			0.13		
2	Spatial Stop Rate, stops/mi	2.60			0.61		
2	Through vol/cap Ratio	0.43			0.21		
2	Percent of Base FFS	42.24			76.18		
2	Level of Service	D			B		
2	Auto Traveler Perception Score	2.55			2.23		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.75		C	2.77		C
2	Bicycle Segment LOS Score / LOS	3.27		C	2.95		C
2	Transit Segment LOS Score / LOS	3.18		C	4.86		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	67.76	58.65
Facility Travel Speed, mph	19.87	22.96
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	43.50	50.65
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.65	2.46

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.92	C	3.16	C
Bicycle Facility LOS Score / LOS	2.92	C	2.54	C
Transit Facility LOS Score / LOS	3.20	C	4.13	D

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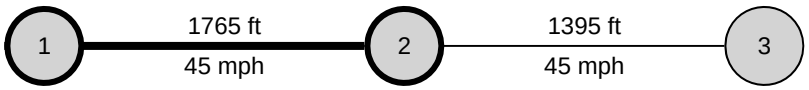
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	85	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.05			45.07		
1	Running Time, s	28.28			28.32		
1	Running Speed, mph	42.55			42.49		
1	Through Delay, s/veh	8.08			10.75		
1	Travel Time, s	36.37			39.07		
1	Travel Speed, mph	33.09			30.80		
1	Stop Rate, stops/veh	0.50			0.39		
1	Spatial Stop Rate, stops/mi	1.51			1.16		
1	Through vol/cap Ratio	0.54			0.20		
1	Percent of Base FFS	73.45			68.34		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.59			2.53		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.44		B	3.57		D
1	Bicycle Segment LOS Score / LOS	2.17		B	2.61		B
1	Transit Segment LOS Score / LOS	3.25		C	3.24		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	77.22	65.26
Facility Travel Speed, mph	27.90	33.01
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	61.71	73.02
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.57	2.43

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.70	C	3.56	F
Bicycle Facility LOS Score / LOS	2.13	B	2.53	C
Transit Facility LOS Score / LOS	3.30	C	3.57	D

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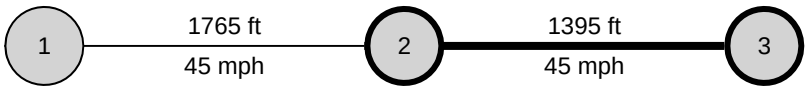
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	75	75	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.42			45.40		
2	Running Time, s	22.72			22.83		
2	Running Speed, mph	41.87			41.65		
2	Through Delay, s/veh	18.14			3.36		
2	Travel Time, s	40.86			26.19		
2	Travel Speed, mph	23.28			36.32		
2	Stop Rate, stops/veh	0.68			0.32		
2	Spatial Stop Rate, stops/mi	2.57			1.22		
2	Through vol/cap Ratio	0.31			0.40		
2	Percent of Base FFS	51.26			80.00		
2	Level of Service	C			B		
2	Auto Traveler Perception Score	2.54			2.32		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.04		C	3.56		F
2	Bicycle Segment LOS Score / LOS	2.07		B	2.42		B
2	Transit Segment LOS Score / LOS	3.36		C	3.99		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	77.22	65.26
Facility Travel Speed, mph	27.90	33.01
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	61.71	73.02
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.57	2.43

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.70	C	3.56	F
Bicycle Facility LOS Score / LOS	2.13	B	2.53	C
Transit Facility LOS Score / LOS	3.30	C	3.57	D

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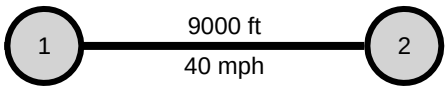
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	60	70	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	42.40			43.15		
1	Running Time, s	160.11			147.57		
1	Running Speed, mph	38.33			41.58		
1	Through Delay, s/veh	23.94			32.99		
1	Travel Time, s	184.05			180.56		
1	Travel Speed, mph	33.34			33.99		
1	Stop Rate, stops/veh	0.58			0.62		
1	Spatial Stop Rate, stops/mi	0.34			0.36		
1	Through vol/cap Ratio	0.03			0.26		
1	Percent of Base FFS	78.64			78.75		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.19			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.94	C		2.82	C	
1	Transit Segment LOS Score / LOS						

Facility Output Data	**Westbound**	**Eastbound**
Facility Travel Time, s	184.05	180.56
Facility Travel Speed, mph	33.34	33.99
Facility Base Free Flow Speed, mph	42.40	43.15
Facility Percent of Base FFS	78.64	78.75
Facility Level of Service	B	B
Facility Auto Traveler Perception Score	2.19	2.40

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.94	C	2.82	C
Transit Facility LOS Score / LOS				

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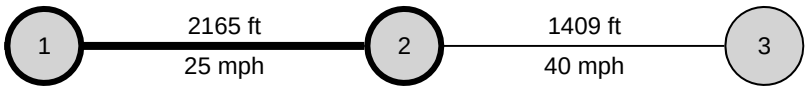
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	LOVR/Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	110	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	36.52			40.73		
1	Running Time, s	43.13			39.50		
1	Running Speed, mph	34.22			37.37		
1	Through Delay, s/veh	20.40			27.58		
1	Travel Time, s	63.53			67.08		
1	Travel Speed, mph	23.24			22.01		
1	Stop Rate, stops/veh	0.78			0.68		
1	Spatial Stop Rate, stops/mi	1.91			1.66		
1	Through vol/cap Ratio	0.81			0.15		
1	Percent of Base FFS	63.63			54.03		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.43			2.39		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.59		F	3.92		F
1	Bicycle Segment LOS Score / LOS	3.42		C	2.31		B
1	Transit Segment LOS Score / LOS	3.14		C	3.10		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	112.07	115.47
Facility Travel Speed, mph	21.74	21.10
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	55.86	54.34
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.45	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.35	F	3.71	F
Bicycle Facility LOS Score / LOS	3.11	C	2.22	B
Transit Facility LOS Score / LOS	3.34	C	3.33	C

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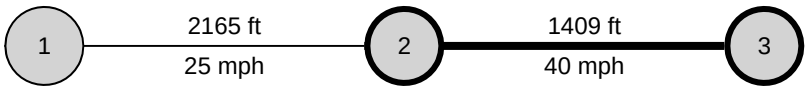
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	76	70	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	43.30			36.25		
2	Running Time, s	25.67			29.35		
2	Running Speed, mph	37.42			32.73		
2	Through Delay, s/veh	22.87			19.04		
2	Travel Time, s	48.54			48.39		
2	Travel Speed, mph	19.79			19.85		
2	Stop Rate, stops/veh	0.57			0.78		
2	Spatial Stop Rate, stops/mi	2.15			2.94		
2	Through vol/cap Ratio	0.48			0.59		
2	Percent of Base FFS	45.70			54.76		
2	Level of Service	D			C		
2	Auto Traveler Perception Score	2.47			2.60		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.99		D	3.39		C
2	Bicycle Segment LOS Score / LOS	2.64		B	2.08		B
2	Transit Segment LOS Score / LOS	3.64		D	3.68		D

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	112.07	115.47
Facility Travel Speed, mph	21.74	21.10
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	55.86	54.34
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.45	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.35	F	3.71	F
Bicycle Facility LOS Score / LOS	3.11	C	2.22	B
Transit Facility LOS Score / LOS	3.34	C	3.33	C

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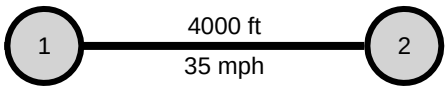
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	12. Froom Ranch Way from LOV	Analysis Year	2019	System Cycle Length, s	120
Intersections	Froom Ranch Way/Dalidio Drive	Froom Ranch Way/LOVR		Analysis Period	1> 7:00
Project Description	Froom Ranch TIS				



Basic Segment Information (Froom Ranch Way between LOVR and Dalido Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	35	35	1	1	4000	4000	120	100	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	41.08			41.09		
1	Running Time, s	68.73			68.12		
1	Running Speed, mph	39.68			40.03		
1	Through Delay, s/veh	21.46			18.35		
1	Travel Time, s	90.19			86.47		
1	Travel Speed, mph	30.24			31.54		
1	Stop Rate, stops/veh	0.82			0.49		
1	Spatial Stop Rate, stops/mi	1.08			0.64		
1	Through vol/cap Ratio	0.62			0.12		
1	Percent of Base FFS	73.60			76.76		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.30			2.24		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.30		C	2.33		B
1	Bicycle Segment LOS Score / LOS	1.41		A	0.78		A
1	Transit Segment LOS Score / LOS	0.95		A	0.28		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	90.19	86.47
Facility Travel Speed, mph	30.24	31.54
Facility Base Free Flow Speed, mph	41.08	41.09
Facility Percent of Base FFS	73.60	76.76
Facility Level of Service	B	B
Facility Auto Traveler Perception Score	2.30	2.24

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.30	C	2.33	C
Bicycle Facility LOS Score / LOS	1.41	A	0.78	A
Transit Facility LOS Score / LOS	0.95	A	0.28	A

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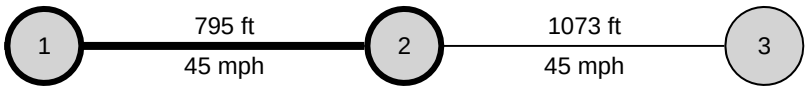
Multimodal Roadway Segment Analysis Sheets - Cumulative (2035) Conditions PM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.46			14.62		
1	Running Speed, mph	37.48			37.07		
1	Through Delay, s/veh	3.52			3.43		
1	Travel Time, s	17.99			18.05		
1	Travel Speed, mph	30.14			30.03		
1	Stop Rate, stops/veh	0.26			0.12		
1	Spatial Stop Rate, stops/mi	1.75			0.79		
1	Through vol/cap Ratio	0.47			0.51		
1	Percent of Base FFS	66.98			66.77		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.41			2.47		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.78		D	4.08		D
1	Bicycle Segment LOS Score / LOS	2.15		B	2.22		B
1	Transit Segment LOS Score / LOS	3.65		D	2.80		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	39.11	47.52
Facility Travel Speed, mph	32.57	26.80
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	71.64	58.97
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.29	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.72	D	4.24	D
Bicycle Facility LOS Score / LOS	2.05	B	1.92	A
Transit Facility LOS Score / LOS	2.92	C	2.04	B

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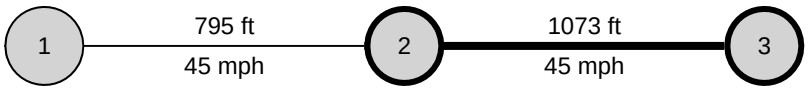
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Canyon	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.34			18.57		
2	Running Speed, mph	39.89			39.40		
2	Through Delay, s/veh	2.78			10.91		
2	Travel Time, s	21.12			29.47		
2	Travel Speed, mph	34.64			24.82		
2	Stop Rate, stops/veh	0.09			0.49		
2	Spatial Stop Rate, stops/mi	0.43			2.42		
2	Through vol/cap Ratio	0.45			0.77		
2	Percent of Base FFS	75.62			54.19		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.20			2.75		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.68		D	4.36		E
2	Bicycle Segment LOS Score / LOS	1.97		A	1.70		A
2	Transit Segment LOS Score / LOS	2.38		B	1.47		A

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	39.11	47.52
Facility Travel Speed, mph	32.57	26.80
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	71.64	58.97
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.29	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.72	D	4.24	D
Bicycle Facility LOS Score / LOS	2.05	B	1.92	A
Transit Facility LOS Score / LOS	2.92	C	2.04	B

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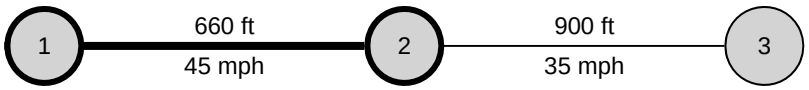
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.78			12.71		
1	Running Speed, mph	35.20			35.40		
1	Through Delay, s/veh	25.71			3.27		
1	Travel Time, s	38.50			15.98		
1	Travel Speed, mph	11.69			28.16		
1	Stop Rate, stops/veh	0.63			0.12		
1	Spatial Stop Rate, stops/mi	5.07			0.95		
1	Through vol/cap Ratio	0.74			0.37		
1	Percent of Base FFS	25.61			61.79		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	2.98			2.28		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.60		D	3.37		C
1	Bicycle Segment LOS Score / LOS	2.40		B	1.74		A
1	Transit Segment LOS Score / LOS	2.69		B	2.92		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	141.00	46.77
Facility Travel Speed, mph	7.54	22.74
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	17.69	49.79
Facility Level of Service	F	D
Facility Auto Traveler Perception Score	3.20	2.42

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.37	C	3.22	C
Bicycle Facility LOS Score / LOS	2.32	C	1.84	A
Transit Facility LOS Score / LOS	2.56	C	2.90	C

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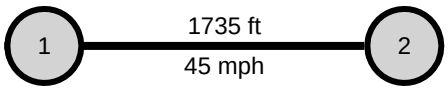
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 4:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	107	115	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.83			44.82		
1	Running Time, s	27.74			27.90		
1	Running Speed, mph	42.64			42.41		
1	Through Delay, s/veh	31.21			46.29		
1	Travel Time, s	58.95			74.19		
1	Travel Speed, mph	20.07			15.95		
1	Stop Rate, stops/veh	0.82			0.92		
1	Spatial Stop Rate, stops/mi	2.48			2.80		
1	Through vol/cap Ratio	0.70			0.94		
1	Percent of Base FFS	44.76			35.58		
1	Level of Service	D			E		
1	Auto Traveler Perception Score	2.53			2.58		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.45		C	3.61		D
1	Bicycle Segment LOS Score / LOS	2.65		B	1.82		A
1	Transit Segment LOS Score / LOS	3.74		D	2.15		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	58.95	74.19
Facility Travel Speed, mph	20.07	15.95
Facility Base Free Flow Speed, mph	44.83	44.82
Facility Percent of Base FFS	44.76	35.58
Facility Level of Service	D	E
Facility Auto Traveler Perception Score	2.53	2.58

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.45	C	3.61	D
Bicycle Facility LOS Score / LOS	2.65	C	1.82	A
Transit Facility LOS Score / LOS	3.74	D	2.15	B

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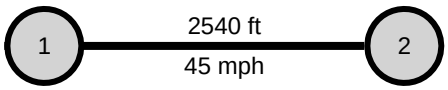
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.58			40.31		
1	Running Speed, mph	42.68			42.97		
1	Through Delay, s/veh	13.67			24.13		
1	Travel Time, s	54.25			64.43		
1	Travel Speed, mph	31.92			26.88		
1	Stop Rate, stops/veh	0.62			0.71		
1	Spatial Stop Rate, stops/mi	1.29			1.48		
1	Through vol/cap Ratio	0.71			0.63		
1	Percent of Base FFS	71.25			59.43		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.33			2.36		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.71		D	3.45		C
1	Bicycle Segment LOS Score / LOS	2.67		B	2.06		B
1	Transit Segment LOS Score / LOS	3.20		C	3.42		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	54.25	64.43
Facility Travel Speed, mph	31.92	26.88
Facility Base Free Flow Speed, mph	44.80	45.22
Facility Percent of Base FFS	71.25	59.43
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.33	2.36

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.71	D	3.45	C
Bicycle Facility LOS Score / LOS	2.67	C	2.06	B
Transit Facility LOS Score / LOS	3.20	C	3.42	C

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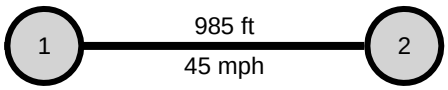
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.33			45.36		
1	Running Time, s	17.01			17.19		
1	Running Speed, mph	39.49			39.08		
1	Through Delay, s/veh	22.13			9.18		
1	Travel Time, s	39.14			26.36		
1	Travel Speed, mph	17.16			25.48		
1	Stop Rate, stops/veh	0.70			0.31		
1	Spatial Stop Rate, stops/mi	3.73			1.64		
1	Through vol/cap Ratio	0.48			0.66		
1	Percent of Base FFS	37.86			56.17		
1	Level of Service	E			C		
1	Auto Traveler Perception Score	2.98			2.39		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.57		D	3.88		D
1	Bicycle Segment LOS Score / LOS	2.84		C	2.98		C
1	Transit Segment LOS Score / LOS	4.99		E	4.81		E

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	39.14	26.36
Facility Travel Speed, mph	17.16	25.48
Facility Base Free Flow Speed, mph	45.33	45.36
Facility Percent of Base FFS	37.86	56.17
Facility Level of Service	E	C
Facility Auto Traveler Perception Score	2.98	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.57	D	3.88	D
Bicycle Facility LOS Score / LOS	2.84	C	2.98	C
Transit Facility LOS Score / LOS	4.99	E	4.81	E

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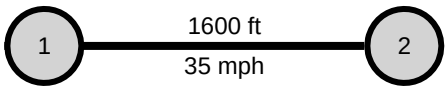
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	45	1	2	1600	1600	105	60	540	540	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	40.78			45.77		
1	Running Time, s	30.89			25.77		
1	Running Speed, mph	35.31			42.33		
1	Through Delay, s/veh	22.89			8.58		
1	Travel Time, s	53.78			34.35		
1	Travel Speed, mph	20.28			31.76		
1	Stop Rate, stops/veh	0.77			0.31		
1	Spatial Stop Rate, stops/mi	2.53			1.01		
1	Through vol/cap Ratio	0.72			0.34		
1	Percent of Base FFS	49.75			69.38		
1	Level of Service	D			B		
1	Auto Traveler Perception Score	2.77			2.51		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.87		D	3.21		C
1	Bicycle Segment LOS Score / LOS	2.40		B	1.95		A
1	Transit Segment LOS Score / LOS	3.56		D	3.31		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	53.78	34.35
Facility Travel Speed, mph	20.28	31.76
Facility Base Free Flow Speed, mph	40.78	45.77
Facility Percent of Base FFS	49.75	69.38
Facility Level of Service	D	B
Facility Auto Traveler Perception Score	2.77	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.87	D	3.21	C
Bicycle Facility LOS Score / LOS	2.40	C	1.95	A
Transit Facility LOS Score / LOS	3.56	D	3.31	C

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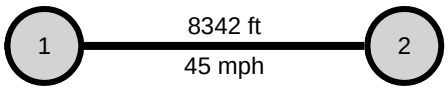
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	130.45			126.22		
1	Running Speed, mph	43.60			45.06		
1	Through Delay, s/veh	1.42			7.46		
1	Travel Time, s	131.87			133.68		
1	Travel Speed, mph	43.13			42.55		
1	Stop Rate, stops/veh	0.31			0.37		
1	Spatial Stop Rate, stops/mi	0.19			0.23		
1	Through vol/cap Ratio	0.70			0.11		
1	Percent of Base FFS	94.34			93.05		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.37			2.38		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.88		A	1.48		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	131.87	133.68
Facility Travel Speed, mph	43.13	42.55
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	94.34	93.05
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.37	2.38

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.88	A	1.48	A
Transit Facility LOS Score / LOS				

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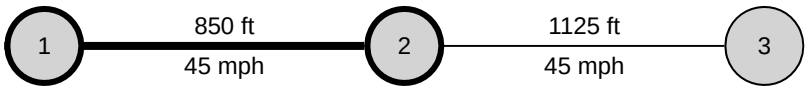
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	100	95	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.60			44.78		
1	Running Time, s	15.04			16.36		
1	Running Speed, mph	38.53			35.42		
1	Through Delay, s/veh	19.55			28.21		
1	Travel Time, s	34.59			44.57		
1	Travel Speed, mph	16.75			13.00		
1	Stop Rate, stops/veh	0.53			0.72		
1	Spatial Stop Rate, stops/mi	3.28			4.47		
1	Through vol/cap Ratio	0.51			0.86		
1	Percent of Base FFS	36.74			29.03		
1	Level of Service	E			F		
1	Auto Traveler Perception Score	2.90			2.87		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.96		C	4.45		E
1	Bicycle Segment LOS Score / LOS	2.26		B	2.35		B
1	Transit Segment LOS Score / LOS	2.53		B	5.47		F

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	89.97	74.88
Facility Travel Speed, mph	14.97	17.98
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	32.76	39.66
Facility Level of Service	E	E
Facility Auto Traveler Perception Score	2.78	2.58

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.88	C	3.81	D
Bicycle Facility LOS Score / LOS	2.85	C	2.92	C
Transit Facility LOS Score / LOS	4.04	D	5.22	F

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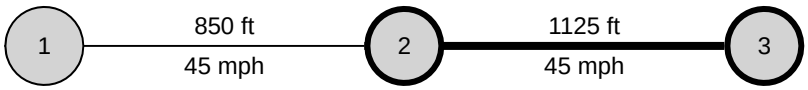
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	85	75	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.76			45.77		
2	Running Time, s	18.89			19.10		
2	Running Speed, mph	40.60			40.16		
2	Through Delay, s/veh	36.48			11.20		
2	Travel Time, s	55.37			30.31		
2	Travel Speed, mph	13.85			25.31		
2	Stop Rate, stops/veh	0.74			0.36		
2	Spatial Stop Rate, stops/mi	3.48			1.70		
2	Through vol/cap Ratio	0.67			0.54		
2	Percent of Base FFS	30.27			55.30		
2	Level of Service	E			C		
2	Auto Traveler Perception Score	2.69			2.40		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.82		C	3.33		C
2	Bicycle Segment LOS Score / LOS	3.30		C	3.34		C
2	Transit Segment LOS Score / LOS	5.18		F	5.03		F

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	89.97	74.88
Facility Travel Speed, mph	14.97	17.98
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	32.76	39.66
Facility Level of Service	E	E
Facility Auto Traveler Perception Score	2.78	2.58

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.88	C	3.81	D
Bicycle Facility LOS Score / LOS	2.85	C	2.92	C
Transit Facility LOS Score / LOS	4.04	D	5.22	F

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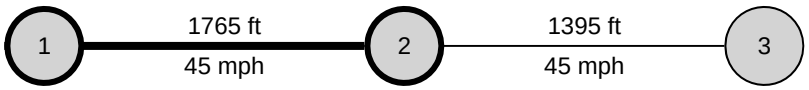
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	115	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.05			45.05		
1	Running Time, s	28.77			28.60		
1	Running Speed, mph	41.83			42.08		
1	Through Delay, s/veh	22.14			28.65		
1	Travel Time, s	50.91			57.25		
1	Travel Speed, mph	23.64			21.02		
1	Stop Rate, stops/veh	0.62			0.64		
1	Spatial Stop Rate, stops/mi	1.86			1.91		
1	Through vol/cap Ratio	0.91			0.58		
1	Percent of Base FFS	52.48			46.66		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.65			2.66		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.28		C	3.97		D
1	Bicycle Segment LOS Score / LOS	2.57		B	2.99		C
1	Transit Segment LOS Score / LOS	3.60		D	3.81		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	92.05	86.54
Facility Travel Speed, mph	23.41	24.90
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	51.74	55.04
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.61	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.43	C	4.30	F
Bicycle Facility LOS Score / LOS	2.44	C	2.72	C
Transit Facility LOS Score / LOS	4.26	E	4.02	D

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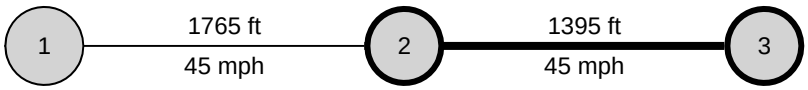
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.48			45.46		
2	Running Time, s	23.18			22.92		
2	Running Speed, mph	41.03			41.50		
2	Through Delay, s/veh	17.97			6.37		
2	Travel Time, s	41.15			29.29		
2	Travel Speed, mph	23.11			32.47		
2	Stop Rate, stops/veh	0.71			0.40		
2	Spatial Stop Rate, stops/mi	2.70			1.53		
2	Through vol/cap Ratio	0.63			0.54		
2	Percent of Base FFS	50.83			71.43		
2	Level of Service	C			B		
2	Auto Traveler Perception Score	2.56			2.37		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.62		D	4.71		F
2	Bicycle Segment LOS Score / LOS	2.28		B	2.38		B
2	Transit Segment LOS Score / LOS	5.09		F	4.29		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	92.05	86.54
Facility Travel Speed, mph	23.41	24.90
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	51.74	55.04
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.61	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.43	C	4.30	F
Bicycle Facility LOS Score / LOS	2.44	C	2.72	C
Transit Facility LOS Score / LOS	4.26	E	4.02	D

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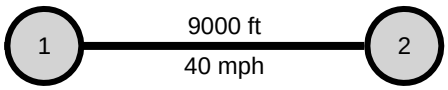
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	135	90	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	42.38			43.15		
1	Running Time, s	155.28			145.58		
1	Running Speed, mph	39.52			42.15		
1	Through Delay, s/veh	21.27			33.38		
1	Travel Time, s	176.55			178.96		
1	Travel Speed, mph	34.76			34.29		
1	Stop Rate, stops/veh	0.63			0.75		
1	Spatial Stop Rate, stops/mi	0.37			0.44		
1	Through vol/cap Ratio	0.03			0.40		
1	Percent of Base FFS	82.01			79.46		
1	Level of Service	A			B		
1	Auto Traveler Perception Score	2.19			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.97		C	2.67		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	176.55	178.96
Facility Travel Speed, mph	34.76	34.29
Facility Base Free Flow Speed, mph	42.38	43.15
Facility Percent of Base FFS	82.01	79.46
Facility Level of Service	A	B
Facility Auto Traveler Perception Score	2.19	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.97	C	2.67	C
Transit Facility LOS Score / LOS				

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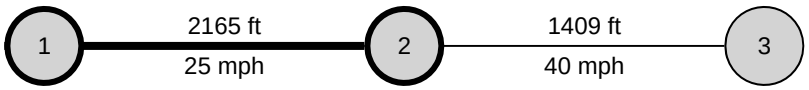
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	LOVR/Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	115	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	36.62			40.93		
1	Running Time, s	42.65			40.28		
1	Running Speed, mph	34.61			36.65		
1	Through Delay, s/veh	12.94			29.81		
1	Travel Time, s	55.60			70.09		
1	Travel Speed, mph	26.55			21.06		
1	Stop Rate, stops/veh	0.60			0.70		
1	Spatial Stop Rate, stops/mi	1.47			1.71		
1	Through vol/cap Ratio	0.40			0.27		
1	Percent of Base FFS	72.50			51.46		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.36			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.66		B	4.24		D
1	Bicycle Segment LOS Score / LOS	3.27		C	2.47		B
1	Transit Segment LOS Score / LOS	2.66		B	3.30		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	108.61	114.18
Facility Travel Speed, mph	22.44	21.34
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	57.33	54.51
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.41	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.03	C	3.79	D
Bicycle Facility LOS Score / LOS	2.97	C	2.44	C
Transit Facility LOS Score / LOS	3.20	C	3.30	C

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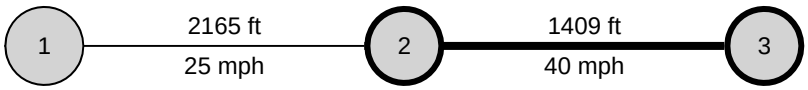
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	90	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	43.76			36.71		
2	Running Time, s	25.08			29.57		
2	Running Speed, mph	38.30			32.49		
2	Through Delay, s/veh	27.93			14.53		
2	Travel Time, s	53.01			44.09		
2	Travel Speed, mph	18.12			21.79		
2	Stop Rate, stops/veh	0.62			0.75		
2	Spatial Stop Rate, stops/mi	2.31			2.82		
2	Through vol/cap Ratio	0.40			0.60		
2	Percent of Base FFS	41.42			59.35		
2	Level of Service	D			C		
2	Auto Traveler Perception Score	2.50			2.58		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.60		D	3.11		C
2	Bicycle Segment LOS Score / LOS	2.49		B	2.39		B
2	Transit Segment LOS Score / LOS	4.03		D	3.31		C

Facility Output Data	**Eastbound**	**Westbound**
Facility Travel Time, s	108.61	114.18
Facility Travel Speed, mph	22.44	21.34
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	57.33	54.51
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.41	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.03	C	3.79	F
Bicycle Facility LOS Score / LOS	2.97	C	2.44	C
Transit Facility LOS Score / LOS	3.20	C	3.30	C

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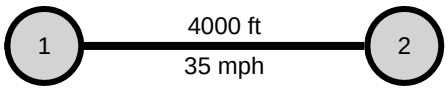
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	12. Froom Ranch Way from LOV	Analysis Year	2019	System Cycle Length, s	120
Intersections	Froom Ranch Way/Dalidio Drive	Froom Ranch Way/LOVR		Analysis Period	1> 7:00
Project Description	Froom Ranch TIS				



Basic Segment Information (Froom Ranch Way between LOVR and Dalido Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	35	35	1	1	4000	4000	120	100	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	41.08			41.09		
1	Running Time, s	68.66			69.01		
1	Running Speed, mph	39.72			39.52		
1	Through Delay, s/veh	29.78			23.53		
1	Travel Time, s	98.44			92.54		
1	Travel Speed, mph	27.71			29.47		
1	Stop Rate, stops/veh	0.82			0.60		
1	Spatial Stop Rate, stops/mi	1.08			0.79		
1	Through vol/cap Ratio	0.49			0.40		
1	Percent of Base FFS	67.44			71.73		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.30			2.26		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.26		C	2.90		C
1	Bicycle Segment LOS Score / LOS	1.44		A	0.92		A
1	Transit Segment LOS Score / LOS	1.11		A	0.38		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	98.44	92.54
Facility Travel Speed, mph	27.71	29.47
Facility Base Free Flow Speed, mph	41.08	41.09
Facility Percent of Base FFS	67.44	71.73
Facility Level of Service	B	B
Facility Auto Traveler Perception Score	2.30	2.26

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.26	C	2.90	C
Bicycle Facility LOS Score / LOS	1.44	A	0.92	A
Transit Facility LOS Score / LOS	1.11	A	0.38	A

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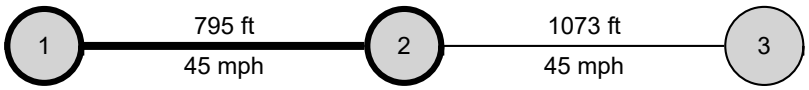
Multimodal Roadway Segment Analysis Sheets - Cumulative (2035) Plus Project Conditions AM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.47			14.26		
1	Running Speed, mph	37.45			38.01		
1	Through Delay, s/veh	5.05			3.61		
1	Travel Time, s	19.53			17.87		
1	Travel Speed, mph	27.76			30.34		
1	Stop Rate, stops/veh	0.34			0.14		
1	Spatial Stop Rate, stops/mi	2.26			0.92		
1	Through vol/cap Ratio	0.50			0.23		
1	Percent of Base FFS	61.70			67.46		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.49			2.49		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.81		D	3.11		C
1	Bicycle Segment LOS Score / LOS	2.15		B	1.87		A
1	Transit Segment LOS Score / LOS	3.65		D	2.64		B

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	40.36	44.48
Facility Travel Speed, mph	31.56	28.63
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	69.42	63.00
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.78	D	3.36	C
Bicycle Facility LOS Score / LOS	2.07	B	1.64	A
Transit Facility LOS Score / LOS	2.93	C	1.77	A

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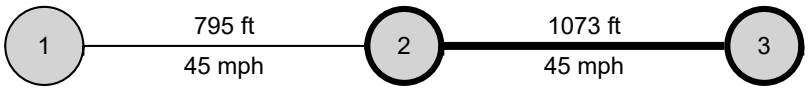
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.41			18.14		
2	Running Speed, mph	39.74			40.32		
2	Through Delay, s/veh	2.42			8.47		
2	Travel Time, s	20.84			26.62		
2	Travel Speed, mph	35.11			27.49		
2	Stop Rate, stops/veh	0.06			0.47		
2	Spatial Stop Rate, stops/mi	0.32			2.30		
2	Through vol/cap Ratio	0.46			0.32		
2	Percent of Base FFS	76.65			60.01		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.19			2.73		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.76		D	3.54		D
2	Bicycle Segment LOS Score / LOS	2.01		B	1.46		A
2	Transit Segment LOS Score / LOS	2.41		B	1.14		A

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	40.36	44.48
Facility Travel Speed, mph	31.56	28.63
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	69.42	63.00
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.31	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.78	D	3.36	C
Bicycle Facility LOS Score / LOS	2.07	B	1.64	A
Transit Facility LOS Score / LOS	2.93	C	1.77	A

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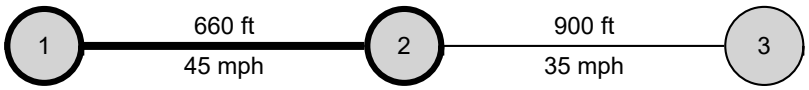
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.82			12.58		
1	Running Speed, mph	35.10			35.77		
1	Through Delay, s/veh	24.62			2.15		
1	Travel Time, s	37.44			14.73		
1	Travel Speed, mph	12.02			30.55		
1	Stop Rate, stops/veh	0.64			0.08		
1	Spatial Stop Rate, stops/mi	5.10			0.62		
1	Through vol/cap Ratio	0.77			0.21		
1	Percent of Base FFS	26.33			67.03		
1	Level of Service	F			B		
1	Auto Traveler Perception Score	2.98			2.23		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.70		D	2.96		C
1	Bicycle Segment LOS Score / LOS	2.43		B	1.50		A
1	Transit Segment LOS Score / LOS	2.67		B	2.81		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	94.70	45.33
Facility Travel Speed, mph	11.23	23.46
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	26.34	51.37
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	3.00	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.49	C	2.84	C
Bicycle Facility LOS Score / LOS	2.38	C	1.58	A
Transit Facility LOS Score / LOS	2.57	C	2.80	C

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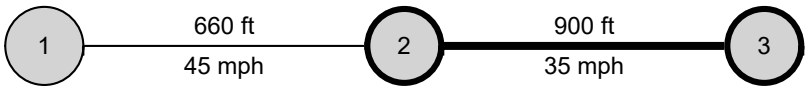
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h						
2	Shared Lane Spillback Time, h						
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.33			15.63		
2	Running Speed, mph	31.75			39.25		
2	Through Delay, s/veh	37.92			14.96		
2	Travel Time, s	57.25			30.60		
2	Travel Speed, mph	10.72			20.06		
2	Stop Rate, stops/veh	0.90			0.42		
2	Spatial Stop Rate, stops/mi	5.28			2.47		
2	Through vol/cap Ratio	0.92			0.32		
2	Percent of Base FFS	26.35			43.83		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	3.02			2.52		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.34		C	2.76		C
2	Bicycle Segment LOS Score / LOS	2.34		B	1.64		A
2	Transit Segment LOS Score / LOS	2.49		B	2.79		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	94.70	45.33
Facility Travel Speed, mph	11.23	23.46
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	26.34	51.37
Facility Level of Service	F	C
Facility Auto Traveler Perception Score	3.00	2.39

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.49	C	2.84	C
Bicycle Facility LOS Score / LOS	2.38	C	1.58	A
Transit Facility LOS Score / LOS	2.57	C	2.80	C

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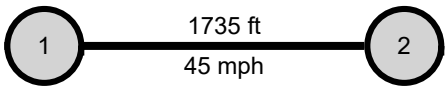
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	115	107	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h						
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	44.82			44.83		
1	Running Time, s	27.70			27.51		
1	Running Speed, mph	42.70			43.00		
1	Through Delay, s/veh	16.44			37.76		
1	Travel Time, s	44.14			65.26		
1	Travel Speed, mph	26.80			18.13		
1	Stop Rate, stops/veh	0.69			0.82		
1	Spatial Stop Rate, stops/mi	2.10			2.50		
1	Through vol/cap Ratio	0.54			0.54		
1	Percent of Base FFS	59.80			40.44		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.46			2.53		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.36		C	3.17		F
1	Bicycle Segment LOS Score / LOS	2.65		B	1.47		A
1	Transit Segment LOS Score / LOS	3.55		D	2.05		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	44.14	65.26
Facility Travel Speed, mph	26.80	18.13
Facility Base Free Flow Speed, mph	44.82	44.83
Facility Percent of Base FFS	59.80	40.44
Facility Level of Service	C	D
Facility Auto Traveler Perception Score	2.46	2.53

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.36	C	3.17	F
Bicycle Facility LOS Score / LOS	2.65	C	1.47	A
Transit Facility LOS Score / LOS	3.55	D	2.05	B

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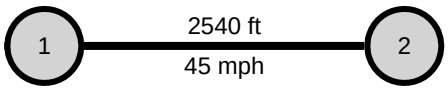
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never		never	never		
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.39			39.84		
1	Running Speed, mph	42.88			43.47		
1	Through Delay, s/veh	9.04			14.72		
1	Travel Time, s	49.43			54.56		
1	Travel Speed, mph	35.04			31.74		
1	Stop Rate, stops/veh	0.52			0.59		
1	Spatial Stop Rate, stops/mi	1.09			1.22		
1	Through vol/cap Ratio	0.57			0.39		
1	Percent of Base FFS	78.21			70.19		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.30			2.32		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.58		D	3.37		C
1	Bicycle Segment LOS Score / LOS	2.57		B	1.86		A
1	Transit Segment LOS Score / LOS	3.10		C	3.25		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	49.43	54.56
Facility Travel Speed, mph	35.04	31.74
Facility Base Free Flow Speed, mph	44.80	45.22
Facility Percent of Base FFS	78.21	70.19
Facility Level of Service	B	B
Facility Auto Traveler Perception Score	2.30	2.32

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.58	D	3.37	C
Bicycle Facility LOS Score / LOS	2.57	C	1.86	A
Transit Facility LOS Score / LOS	3.10	C	3.25	C

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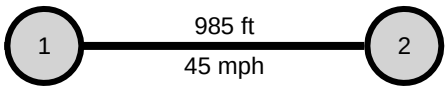
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	35	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h			never	never		
1	Base Free-Flow Speed, mph		45.33			40.66	
1	Running Time, s		17.08			20.09	
1	Running Speed, mph		39.32			33.43	
1	Through Delay, s/veh		15.40			17.78	
1	Travel Time, s		32.48			37.87	
1	Travel Speed, mph		22.43			20.13	
1	Stop Rate, stops/veh		0.46			0.65	
1	Spatial Stop Rate, stops/mi		2.47			3.49	
1	Through vol/cap Ratio		0.66			0.42	
1	Percent of Base FFS		49.48			49.51	
1	Level of Service		D			D	
1	Auto Traveler Perception Score		2.76			2.70	
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.88		D	3.37		C
1	Bicycle Segment LOS Score / LOS	2.87		C	2.55		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	32.48	37.87
Facility Travel Speed, mph	20.68	17.73
Facility Base Free Flow Speed, mph	45.33	40.66
Facility Percent of Base FFS	45.62	43.62
Facility Level of Service	D	D
Facility Auto Traveler Perception Score	2.76	2.70

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.88	D	3.37	C
Bicycle Facility LOS Score / LOS	2.87	C	2.55	C
Transit Facility LOS Score / LOS				

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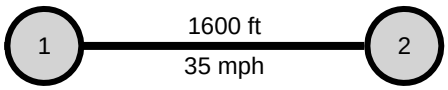
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	35	1	2	1600	1600	72	60	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h				0.16	never	
1	Shared Lane Spillback Time, h				4.42		
1	Base Free-Flow Speed, mph	40.64			41.19		
1	Running Time, s	33.07			30.00		
1	Running Speed, mph	32.99			36.37		
1	Through Delay, s/veh	23.00			10.22		
1	Travel Time, s	56.07			40.22		
1	Travel Speed, mph	19.46			27.12		
1	Stop Rate, stops/veh	0.75			0.39		
1	Spatial Stop Rate, stops/mi	2.46			1.29		
1	Through vol/cap Ratio	0.82			0.56		
1	Percent of Base FFS	47.87			65.85		
1	Level of Service	D			C		
1	Auto Traveler Perception Score	2.75			2.55		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.66		E	3.64		D
1	Bicycle Segment LOS Score / LOS	2.44		B	1.85		A
1	Transit Segment LOS Score / LOS	4.08		D	3.63		D

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	56.07	40.22
Facility Travel Speed, mph	19.46	27.12
Facility Base Free Flow Speed, mph	40.64	41.19
Facility Percent of Base FFS	47.87	65.85
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.75	2.55

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.66	E	3.64	D
Bicycle Facility LOS Score / LOS	2.44	C	1.85	A
Transit Facility LOS Score / LOS	4.08	D	3.63	D

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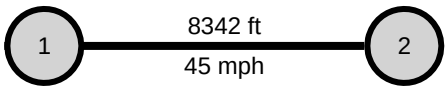
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never					
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	127.15			127.78		
1	Running Speed, mph	44.73			44.51		
1	Through Delay, s/veh	1.11			14.21		
1	Travel Time, s	128.25			141.99		
1	Travel Speed, mph	44.35			40.06		
1	Stop Rate, stops/veh	0.36			0.66		
1	Spatial Stop Rate, stops/mi	0.23			0.42		
1	Through vol/cap Ratio	0.38			0.54		
1	Percent of Base FFS	97.00			87.60		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.38			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.63		A	1.70		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	128.25	141.99
Facility Travel Speed, mph	44.35	40.06
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	97.00	87.60
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.38	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.63	A	1.70	A
Transit Facility LOS Score / LOS				

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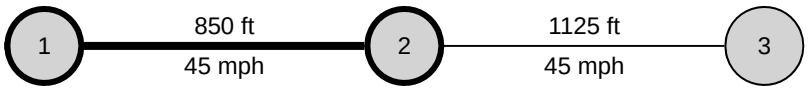
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	110	90	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph		45.59			44.80	
1	Running Time, s		15.32			15.28	
1	Running Speed, mph		37.82			37.94	
1	Through Delay, s/veh		13.01			21.40	
1	Travel Time, s		28.34			36.68	
1	Travel Speed, mph		20.45			15.80	
1	Stop Rate, stops/veh		0.44			0.71	
1	Spatial Stop Rate, stops/mi		2.75			4.42	
1	Through vol/cap Ratio		0.71			0.59	
1	Percent of Base FFS		44.86			35.28	
1	Level of Service		D			E	
1	Auto Traveler Perception Score		2.80			2.86	
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.16		C	3.72		D
1	Bicycle Segment LOS Score / LOS	2.47		B	2.02		B
1	Transit Segment LOS Score / LOS	3.22		C	3.17		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	68.51	58.76
Facility Travel Speed, mph	19.65	22.92
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	43.02	50.56
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.65	2.46

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.94	C	3.19	C
Bicycle Facility LOS Score / LOS	2.93	C	2.55	C
Transit Facility LOS Score / LOS	3.21	C	4.13	D

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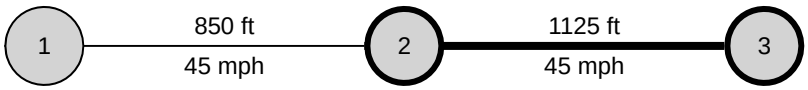
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	95	115	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h		never	0.05		never	
2	Shared Lane Spillback Time, h	never		1.40	never		
2	Base Free-Flow Speed, mph	45.76			45.74		
2	Running Time, s	19.11			18.75		
2	Running Speed, mph	40.14			40.91		
2	Through Delay, s/veh	21.07			3.33		
2	Travel Time, s	40.18			22.08		
2	Travel Speed, mph	19.09			34.74		
2	Stop Rate, stops/veh	0.56			0.13		
2	Spatial Stop Rate, stops/mi	2.63			0.61		
2	Through vol/cap Ratio	0.44			0.21		
2	Percent of Base FFS	41.73			75.94		
2	Level of Service	D			B		
2	Auto Traveler Perception Score	2.55			2.23		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.77		C	2.80		C
2	Bicycle Segment LOS Score / LOS	3.28		C	2.96		C
2	Transit Segment LOS Score / LOS	3.20		C	4.86		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	68.51	58.76
Facility Travel Speed, mph	19.65	22.92
Facility Base Free Flow Speed, mph	45.68	45.33
Facility Percent of Base FFS	43.02	50.56
Facility Level of Service	D	C
Facility Auto Traveler Perception Score	2.65	2.46

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.94	C	3.19	C
Bicycle Facility LOS Score / LOS	2.93	C	2.55	C
Transit Facility LOS Score / LOS	3.21	C	4.13	D

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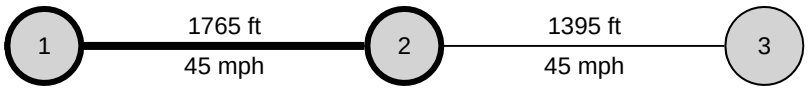
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	85	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h					never	
1	Shared Lane Spillback Time, h				never		
1	Base Free-Flow Speed, mph	45.05			45.07		
1	Running Time, s	28.30			28.33		
1	Running Speed, mph	42.53			42.48		
1	Through Delay, s/veh	8.15			11.03		
1	Travel Time, s	36.45			39.35		
1	Travel Speed, mph	33.02			30.58		
1	Stop Rate, stops/veh	0.51			0.39		
1	Spatial Stop Rate, stops/mi	1.51			1.18		
1	Through vol/cap Ratio	0.55			0.21		
1	Percent of Base FFS	73.29			67.84		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.59			2.53		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.45		B	3.58		D
1	Bicycle Segment LOS Score / LOS	2.18		B	2.62		B
1	Transit Segment LOS Score / LOS	3.26		C	3.25		C

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	77.28	65.56
Facility Travel Speed, mph	27.88	32.86
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	61.67	72.68
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.57	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.71	C	3.57	F
Bicycle Facility LOS Score / LOS	2.13	B	2.53	C
Transit Facility LOS Score / LOS	3.30	C	3.58	D

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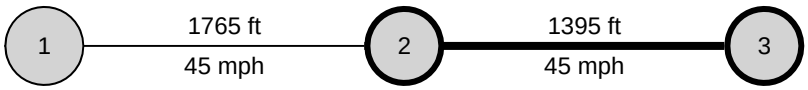
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	75	75	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h		never				
2	Shared Lane Spillback Time, h	never					
2	Base Free-Flow Speed, mph	45.42			45.40		
2	Running Time, s	22.72			22.84		
2	Running Speed, mph	41.86			41.64		
2	Through Delay, s/veh	18.11			3.37		
2	Travel Time, s	40.83			26.21		
2	Travel Speed, mph	23.29			36.29		
2	Stop Rate, stops/veh	0.68			0.32		
2	Spatial Stop Rate, stops/mi	2.57			1.21		
2	Through vol/cap Ratio	0.32			0.41		
2	Percent of Base FFS	51.29			79.95		
2	Level of Service	C			B		
2	Auto Traveler Perception Score	2.54			2.32		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.04		C	3.57		F
2	Bicycle Segment LOS Score / LOS	2.08		B	2.42		B
2	Transit Segment LOS Score / LOS	3.36		C	3.99		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	77.28	65.56
Facility Travel Speed, mph	27.88	32.86
Facility Base Free Flow Speed, mph	45.21	45.21
Facility Percent of Base FFS	61.67	72.68
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.57	2.44

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.71	C	3.57	F
Bicycle Facility LOS Score / LOS	2.13	B	2.53	C
Transit Facility LOS Score / LOS	3.30	C	3.58	D

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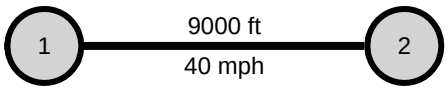
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	AM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	60	70	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		never
1	Base Free-Flow Speed, mph	42.40			43.15		
1	Running Time, s	160.11			147.62		
1	Running Speed, mph	38.33			41.57		
1	Through Delay, s/veh	23.87			33.01		
1	Travel Time, s	183.98			180.63		
1	Travel Speed, mph	33.35			33.97		
1	Stop Rate, stops/veh	0.58			0.62		
1	Spatial Stop Rate, stops/mi	0.34			0.36		
1	Through vol/cap Ratio	0.03			0.27		
1	Percent of Base FFS	78.67			78.72		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.19			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.94		C	2.83		C
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound		Eastbound	
Facility Travel Time, s	183.98		180.63	
Facility Travel Speed, mph	33.35		33.97	
Facility Base Free Flow Speed, mph	42.40		43.15	
Facility Percent of Base FFS	78.67		78.72	
Facility Level of Service	B		B	
Facility Auto Traveler Perception Score	2.19		2.40	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.94	C	2.83	C
Transit Facility LOS Score / LOS				

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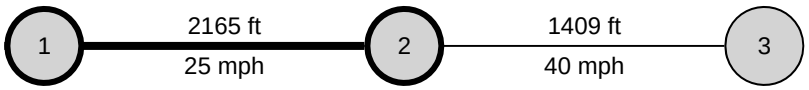
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	LOVR/Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	110	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h	never	never			never	never
1	Shared Lane Spillback Time, h	never					never
1	Base Free-Flow Speed, mph	36.52			40.73		
1	Running Time, s	43.15			39.53		
1	Running Speed, mph	34.21			37.34		
1	Through Delay, s/veh	20.51			27.80		
1	Travel Time, s	63.66			67.34		
1	Travel Speed, mph	23.19			21.92		
1	Stop Rate, stops/veh	0.78			0.68		
1	Spatial Stop Rate, stops/mi	1.91			1.66		
1	Through vol/cap Ratio	0.81			0.15		
1	Percent of Base FFS	63.49			53.82		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.43			2.39		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	4.60		F	3.94		F
1	Bicycle Segment LOS Score / LOS	3.42		C	2.31		B
1	Transit Segment LOS Score / LOS	3.15		C	3.11		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	112.35	115.87
Facility Travel Speed, mph	21.69	21.03
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	55.73	54.15
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.45	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.36	F	3.73	F
Bicycle Facility LOS Score / LOS	3.11	C	2.22	B
Transit Facility LOS Score / LOS	3.35	C	3.33	C

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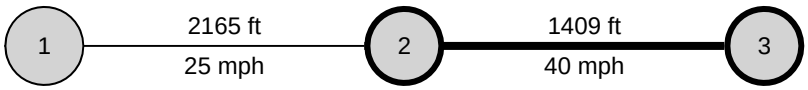
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	76	70	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	43.30			36.25		
2	Running Time, s	25.68			29.36		
2	Running Speed, mph	37.41			32.72		
2	Through Delay, s/veh	23.00			19.17		
2	Travel Time, s	48.69			48.53		
2	Travel Speed, mph	19.73			19.79		
2	Stop Rate, stops/veh	0.58			0.79		
2	Spatial Stop Rate, stops/mi	2.16			2.95		
2	Through vol/cap Ratio	0.49			0.59		
2	Percent of Base FFS	45.57			54.60		
2	Level of Service	D			C		
2	Auto Traveler Perception Score	2.47			2.60		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	4.00		D	3.40		C
2	Bicycle Segment LOS Score / LOS	2.64		B	2.09		B
2	Transit Segment LOS Score / LOS	3.65		D	3.68		D

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	112.35	115.87
Facility Travel Speed, mph	21.69	21.03
Facility Base Free Flow Speed, mph	38.92	38.84
Facility Percent of Base FFS	55.73	54.15
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.45	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	4.36	F	3.73	F
Bicycle Facility LOS Score / LOS	3.11	C	2.22	B
Transit Facility LOS Score / LOS	3.35	C	3.33	C

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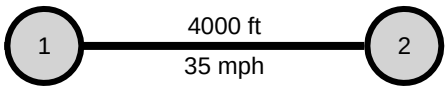
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	12. Froom Ranch from LOVR to	Analysis Year	2019	System Cycle Length, s	120
Intersections	Froom Ranch Way/Dalidio Drive	Froom Ranch Way/LOVR		Analysis Period	1> 7:00
Project Description	Froom Ranch TIS				



Basic Segment Information (Froom Ranch Way between LOVR and Dalido Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	35	35	1	1	4000	4000	120	100	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h		never		never	never	
1	Shared Lane Spillback Time, h				never		never
1	Base Free-Flow Speed, mph	41.08			41.09		
1	Running Time, s	68.77			68.22		
1	Running Speed, mph	39.66			39.98		
1	Through Delay, s/veh	21.67			18.40		
1	Travel Time, s	90.44			86.62		
1	Travel Speed, mph	30.15			31.49		
1	Stop Rate, stops/veh	0.81			0.49		
1	Spatial Stop Rate, stops/mi	1.07			0.64		
1	Through vol/cap Ratio	0.56			0.12		
1	Percent of Base FFS	73.40			76.63		
1	Level of Service	B			B		
1	Auto Traveler Perception Score	2.30			2.24		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.14		C	2.38		B
1	Bicycle Segment LOS Score / LOS	1.42		A	0.80		A
1	Transit Segment LOS Score / LOS	0.92		A	0.29		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	90.44	86.62
Facility Travel Speed, mph	30.15	31.49
Facility Base Free Flow Speed, mph	41.08	41.09
Facility Percent of Base FFS	73.40	76.63
Facility Level of Service	B	B
Facility Auto Traveler Perception Score	2.30	2.24

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.14	C	2.38	C
Bicycle Facility LOS Score / LOS	1.42	A	0.80	A
Transit Facility LOS Score / LOS	0.92	A	0.29	A

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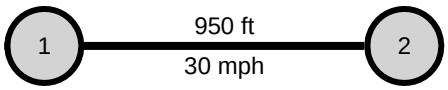
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	2
Analyst		Analysis Date	1/14/2019	Number of Segments	1
Jurisdiction		Time Period		Number of Iterations	15
File Name	13. Collector A from LOVR to Co	Analysis Year	2019	System Cycle Length, s	120
Intersections	LOVR/Collector A	Collector A/Collector B		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan TIS				



Basic Segment Information (Commercial Collector A)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	30	30	1	1	950	950	50	50	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	39.37			39.37		
1	Running Time, s	19.64			19.67		
1	Running Speed, mph	32.98			32.93		
1	Through Delay, s/veh	1.77			0.00		
1	Travel Time, s	21.41			19.67		
1	Travel Speed, mph	30.25			32.93		
1	Stop Rate, stops/veh	0.09			0.00		
1	Spatial Stop Rate, stops/mi	0.50			0.00		
1	Through vol/cap Ratio	0.08			0.00		
1	Percent of Base FFS	76.83			83.65		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.42			2.34		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.19		B	2.78		C
1	Bicycle Segment LOS Score / LOS	0.93		A	0.48		A
1	Transit Segment LOS Score / LOS	0.64		A	0.65		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	21.41	19.67
Facility Travel Speed, mph	30.25	32.93
Facility Base Free Flow Speed, mph	39.37	39.37
Facility Percent of Base FFS	76.83	83.65
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.42	2.34

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.19	B	2.78	C
Bicycle Facility LOS Score / LOS	0.93	A	0.48	A
Transit Facility LOS Score / LOS	0.64	A	0.65	A

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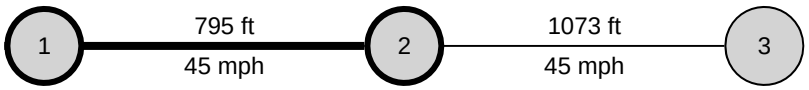
Multimodal Roadway Segment Analysis Sheets - Cumulative (2035) Plus Project Conditions PM

HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Perfumo Canyon Rd	LOVR Laguna Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Oceanaire Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	795	795	60	70	585	585	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		
1	Base Free-Flow Speed, mph	44.99			44.97		
1	Running Time, s	14.47			14.63		
1	Running Speed, mph	37.46			37.05		
1	Through Delay, s/veh	3.56			3.47		
1	Travel Time, s	18.03			18.10		
1	Travel Speed, mph	30.07			29.94		
1	Stop Rate, stops/veh	0.26			0.12		
1	Spatial Stop Rate, stops/mi	1.75			0.80		
1	Through vol/cap Ratio	0.48			0.51		
1	Percent of Base FFS	66.84			66.58		
1	Level of Service	C			C		
1	Auto Traveler Perception Score	2.41			2.47		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.80		D	4.09		D
1	Bicycle Segment LOS Score / LOS	2.16		B	2.23		B
1	Transit Segment LOS Score / LOS	3.65		D	2.80		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	39.19	47.74
Facility Travel Speed, mph	32.50	26.68
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	71.50	58.71
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.29	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.74	D	4.26	E
Bicycle Facility LOS Score / LOS	2.05	B	1.93	A
Transit Facility LOS Score / LOS	2.92	C	2.05	B

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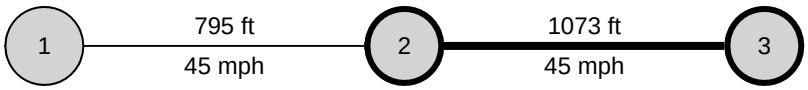
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	1. LOVR from Perfumo Rd to Oc	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR Laguna Ln	LOVR/Ocenaire Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from Perfumo Canyon Rd to Ocenarie Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	45	45	2	2	1073	1073	60	72	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never					
2	Base Free-Flow Speed, mph	45.81			45.80		
2	Running Time, s	18.35			18.58		
2	Running Speed, mph	39.87			39.38		
2	Through Delay, s/veh	2.81			11.06		
2	Travel Time, s	21.16			29.63		
2	Travel Speed, mph	34.57			24.69		
2	Stop Rate, stops/veh	0.09			0.49		
2	Spatial Stop Rate, stops/mi	0.44			2.43		
2	Through vol/cap Ratio	0.45			0.77		
2	Percent of Base FFS	75.47			53.90		
2	Level of Service	B			C		
2	Auto Traveler Perception Score	2.20			2.75		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.69		D	4.38		E
2	Bicycle Segment LOS Score / LOS	1.98		A	1.71		A
2	Transit Segment LOS Score / LOS	2.39		B	1.49		A

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	39.19	47.74
Facility Travel Speed, mph	32.50	26.68
Facility Base Free Flow Speed, mph	45.46	45.45
Facility Percent of Base FFS	71.50	58.71
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.29	2.62

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.74	D	4.26	E
Bicycle Facility LOS Score / LOS	2.05	B	1.93	A
Transit Facility LOS Score / LOS	2.92	C	2.05	B

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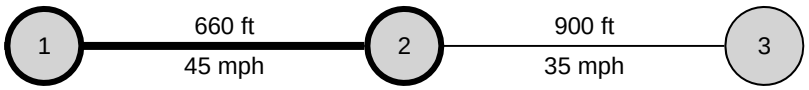
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Ocenarie Dr	LOVR/Royal Way		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Oceanaire Dr and Royal Wy)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	660	660	66	83	420	450	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h	never	never			never	
1	Shared Lane Spillback Time, h	never		never			
1	Base Free-Flow Speed, mph	45.65			45.57		
1	Running Time, s	12.79			12.71		
1	Running Speed, mph	35.18			35.40		
1	Through Delay, s/veh	25.99			3.28		
1	Travel Time, s	38.78			16.00		
1	Travel Speed, mph	11.60			28.13		
1	Stop Rate, stops/veh	0.64			0.12		
1	Spatial Stop Rate, stops/mi	5.11			0.95		
1	Through vol/cap Ratio	0.75			0.37		
1	Percent of Base FFS	25.42			61.73		
1	Level of Service	F			C		
1	Auto Traveler Perception Score	2.99			2.28		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.61		D	3.38		C
1	Bicycle Segment LOS Score / LOS	2.40		B	1.74		A
1	Transit Segment LOS Score / LOS	2.71		B	2.93		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	148.02	46.81
Facility Travel Speed, mph	7.19	22.72
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	16.85	49.74
Facility Level of Service	F	D
Facility Auto Traveler Perception Score	3.23	2.42

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.38	C	3.23	C
Bicycle Facility LOS Score / LOS	2.32	C	1.84	A
Transit Facility LOS Score / LOS	2.57	C	2.90	C

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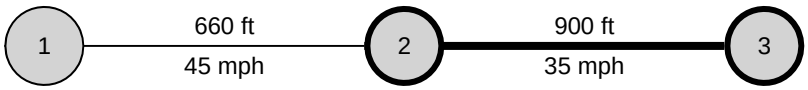
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	2
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	2. LOVR from Oceanire Dr to Ma	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Royal Way	LOVR/Madonna Wy		Analysis Period	1> 7:00
Project Description	Froom Ranch Specifinc Plan EIR				



Basic Segment Information (LOVR between Royal Wy and Madonna St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
2	35	45	2	3	900	900	110	77	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h				never	never	
2	Shared Lane Spillback Time, h				never		
2	Base Free-Flow Speed, mph	40.68			45.75		
2	Running Time, s	19.20			15.85		
2	Running Speed, mph	31.96			38.72		
2	Through Delay, s/veh	90.03			14.97		
2	Travel Time, s	109.24			30.82		
2	Travel Speed, mph	5.62			19.91		
2	Stop Rate, stops/veh	1.27			0.44		
2	Spatial Stop Rate, stops/mi	7.43			2.57		
2	Through vol/cap Ratio	1.08			0.52		
2	Percent of Base FFS	13.81			43.52		
2	Level of Service	F			D		
2	Auto Traveler Perception Score	3.43			2.54		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.21		C	3.11		C
2	Bicycle Segment LOS Score / LOS	2.27		B	1.92		A
2	Transit Segment LOS Score / LOS	2.47		B	2.88		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	148.02	46.81
Facility Travel Speed, mph	7.19	22.72
Facility Base Free Flow Speed, mph	42.64	45.68
Facility Percent of Base FFS	16.85	49.74
Facility Level of Service	F	D
Facility Auto Traveler Perception Score	3.23	2.42

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.38	C	3.23	C
Bicycle Facility LOS Score / LOS	2.32	C	1.84	A
Transit Facility LOS Score / LOS	2.57	C	2.90	C

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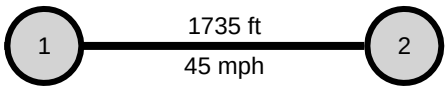
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 1, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	3. LOVR from Madona Rd to Frc	Analysis Year	2018	System Cycle Length, s	123
Intersections	Los Osos Valley Road/Madonna	Los Osos Valley Road/Froom Ranch Way		Analysis Period	1> 4:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (Los Osos Valley Road from Madonna Rd to Froom Ranch Way)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	3	3	1735	1735	107	115	1627	1627	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h	never	never	never		never	
1	Shared Lane Spillback Time, h	never		never	never		
1	Base Free-Flow Speed, mph	44.83			44.82		
1	Running Time, s	27.76			27.91		
1	Running Speed, mph	42.61			42.38		
1	Through Delay, s/veh	33.04			48.57		
1	Travel Time, s	60.80			76.48		
1	Travel Speed, mph	19.46			15.47		
1	Stop Rate, stops/veh	0.83			0.93		
1	Spatial Stop Rate, stops/mi	2.54			2.85		
1	Through vol/cap Ratio	0.74			0.96		
1	Percent of Base FFS	43.40			34.51		
1	Level of Service	D			E		
1	Auto Traveler Perception Score	2.53			2.59		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.48		C	3.63		D
1	Bicycle Segment LOS Score / LOS	2.66		B	1.83		A
1	Transit Segment LOS Score / LOS	3.76		D	2.15		B

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	60.80	76.48
Facility Travel Speed, mph	19.46	15.47
Facility Base Free Flow Speed, mph	44.83	44.82
Facility Percent of Base FFS	43.40	34.51
Facility Level of Service	D	E
Facility Auto Traveler Perception Score	2.53	2.59

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.48	C	3.63	D
Bicycle Facility LOS Score / LOS	2.66	C	1.83	A
Transit Facility LOS Score / LOS	3.76	D	2.15	B

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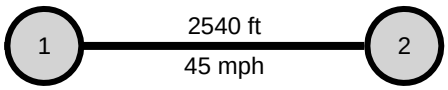
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	4. LOVR from Froom Ranch Wy	Analysis Year	2018	System Cycle Length, s	120
Intersections	Los Osos Valley Rd/Froom Ranc	Los Osos Valley Rd/Calle Joaquin		Analysis Period	1> 7:00
Project Description	Frrom Ranch Specific EIR				



Basic Segment Information (LOS Osos Valley Rd from Froom Ranch Wy to Calle Joaquin)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	3	2540	2540	95	90	800	800	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never		never	never		
1	Base Free-Flow Speed, mph	44.80			45.22		
1	Running Time, s	40.68			40.36		
1	Running Speed, mph	42.58			42.91		
1	Through Delay, s/veh	14.28			25.55		
1	Travel Time, s	54.96			65.91		
1	Travel Speed, mph	31.51			26.27		
1	Stop Rate, stops/veh	0.62			0.73		
1	Spatial Stop Rate, stops/mi	1.30			1.52		
1	Through vol/cap Ratio	0.75			0.67		
1	Percent of Base FFS	70.34			58.10		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.34			2.37		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.77		D	3.48		C
1	Bicycle Segment LOS Score / LOS	2.69		B	2.07		B
1	Transit Segment LOS Score / LOS	3.22		C	3.44		C

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	54.96	65.91
Facility Travel Speed, mph	31.51	26.27
Facility Base Free Flow Speed, mph	44.80	45.22
Facility Percent of Base FFS	70.34	58.10
Facility Level of Service	B	C
Facility Auto Traveler Perception Score	2.34	2.37

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.77	D	3.48	C
Bicycle Facility LOS Score / LOS	2.69	C	2.07	B
Transit Facility LOS Score / LOS	3.22	C	3.44	C

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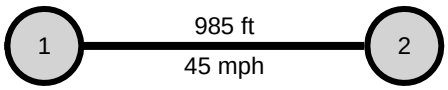
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	May 2, 2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	5. LOVR from US 101 SB to US	Analysis Year	2018	System Cycle Length, s	95
Intersections	Los Osos Valley Rd/US 101 SB	LOVR/US 101 NB Ramps		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Los Osos Valley Rd from US 101 SB Ramps to US 101 NB Ramps)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	2	2	985	985	97	72	890	890	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h			never	never		
1	Base Free-Flow Speed, mph	45.33			45.36		
1	Running Time, s	17.03			17.21		
1	Running Speed, mph	39.43			39.03		
1	Through Delay, s/veh	22.64			9.58		
1	Travel Time, s	39.67			26.79		
1	Travel Speed, mph	16.93			25.07		
1	Stop Rate, stops/veh	0.71			0.30		
1	Spatial Stop Rate, stops/mi	3.79			1.63		
1	Through vol/cap Ratio	0.50			0.70		
1	Percent of Base FFS	37.35			55.27		
1	Level of Service	E			C		
1	Auto Traveler Perception Score	2.99			2.39		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.61		D	3.91		D
1	Bicycle Segment LOS Score / LOS	2.85		C	2.99		C
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound		Northbound	
Facility Travel Time, s	39.67		26.79	
Facility Travel Speed, mph	16.93		25.07	
Facility Base Free Flow Speed, mph	45.33		45.36	
Facility Percent of Base FFS	37.35		55.27	
Facility Level of Service	E		C	
Facility Auto Traveler Perception Score	2.99		2.39	
Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.61	D	3.91	D
Bicycle Facility LOS Score / LOS	2.85	C	2.99	C
Transit Facility LOS Score / LOS				

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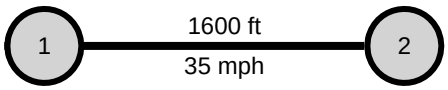
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/2/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	6. LOVR from US 101 NB to S H	Analysis Year	2018	System Cycle Length, s	95
Intersections	LOVR/US 101 NB Ramps	LOVR/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (LOVR from US 101 NB to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	35	45	1	2	1600	1600	105	60	540	540	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		2	12	1	6	
1	Bay/Lane Spillback Time, h					never	
1	Shared Lane Spillback Time, h				never		
1	Base Free-Flow Speed, mph	40.78			45.77		
1	Running Time, s	30.99			25.79		
1	Running Speed, mph	35.20			42.30		
1	Through Delay, s/veh	23.10			8.68		
1	Travel Time, s	54.09			34.47		
1	Travel Speed, mph	20.17			31.65		
1	Stop Rate, stops/veh	0.76			0.31		
1	Spatial Stop Rate, stops/mi	2.52			1.02		
1	Through vol/cap Ratio	0.72			0.36		
1	Percent of Base FFS	49.46			69.15		
1	Level of Service	D			B		
1	Auto Traveler Perception Score	2.76			2.51		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.91		D	3.23		C
1	Bicycle Segment LOS Score / LOS	2.41		B	1.97		A
1	Transit Segment LOS Score / LOS	3.58		D	3.32		C

Facility Output Data	**Southbound**	**Northbound**
Facility Travel Time, s	54.09	34.47
Facility Travel Speed, mph	20.17	31.65
Facility Base Free Flow Speed, mph	40.78	45.77
Facility Percent of Base FFS	49.46	69.15
Facility Level of Service	D	B
Facility Auto Traveler Perception Score	2.76	2.51

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.91	D	3.23	C
Bicycle Facility LOS Score / LOS	2.41	C	1.97	A
Transit Facility LOS Score / LOS	3.58	D	3.32	C

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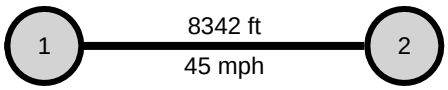
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/9/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	7. S Higuera from LOVR to Clov	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/LOVR	S Higuera St/Clover Ridge Ln		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera from LOVR to Clover Ridge Ln)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
1	45	45	1	1	8342	8342	110	50	0	0	70	70	0.0	0.0

		Southbound			Northbound		
Segment Output Data		SBL	SBT	SBR	NBL	NBT	NBR
Segment	Movement		6	16	5	2	
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never					
1	Base Free-Flow Speed, mph	45.72			45.73		
1	Running Time, s	130.47			126.22		
1	Running Speed, mph	43.59			45.06		
1	Through Delay, s/veh	1.43			7.60		
1	Travel Time, s	131.90			133.82		
1	Travel Speed, mph	43.12			42.50		
1	Stop Rate, stops/veh	0.31			0.37		
1	Spatial Stop Rate, stops/mi	0.19			0.23		
1	Through vol/cap Ratio	0.70			0.11		
1	Percent of Base FFS	94.32			92.95		
1	Level of Service	A			A		
1	Auto Traveler Perception Score	2.37			2.38		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	1.88		A	1.48		A
1	Transit Segment LOS Score / LOS						

Facility Output Data	Southbound	Northbound
Facility Travel Time, s	131.90	133.82
Facility Travel Speed, mph	43.12	42.50
Facility Base Free Flow Speed, mph	45.72	45.73
Facility Percent of Base FFS	94.32	92.95
Facility Level of Service	A	A
Facility Auto Traveler Perception Score	2.37	2.38

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	1.88	A	1.48	A
Transit Facility LOS Score / LOS				

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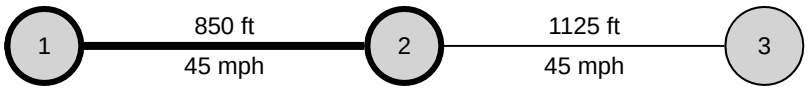
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/LOVR	S Higuera St/Suburban Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between LOVR and Suburban Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	1	850	850	100	95	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2			6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h						
1	Base Free-Flow Speed, mph	45.60			44.78		
1	Running Time, s	15.05			16.43		
1	Running Speed, mph	38.50			35.27		
1	Through Delay, s/veh	19.86			27.71		
1	Travel Time, s	34.91			44.14		
1	Travel Speed, mph	16.60			13.13		
1	Stop Rate, stops/veh	0.53			0.70		
1	Spatial Stop Rate, stops/mi	3.31			4.33		
1	Through vol/cap Ratio	0.53			0.84		
1	Percent of Base FFS	36.40			29.32		
1	Level of Service	E			F		
1	Auto Traveler Perception Score	2.90			2.85		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.98		C	4.48		E
1	Bicycle Segment LOS Score / LOS	2.27		B	2.37		B
1	Transit Segment LOS Score / LOS	2.55		B	5.47		F

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	91.58	74.75
Facility Travel Speed, mph	14.70	18.01
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	32.18	39.73
Facility Level of Service	E	E
Facility Auto Traveler Perception Score	2.79	2.57

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.90	C	3.84	D
Bicycle Facility LOS Score / LOS	2.86	C	2.92	C
Transit Facility LOS Score / LOS	4.06	D	5.22	F

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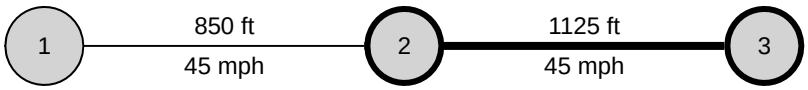
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/2/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	8. S Higuera St from LOVR to Ta	Analysis Year	2018	System Cycle Length, s	95
Intersections	S Higuera St/Suburban Rd	S Higuera St/Tank Farm Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St between Suburban Dr and Tank Farm Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1125	1125	85	75	62	62	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		2	12	1	6	
2	Bay/Lane Spillback Time, h		never	never		never	
2	Shared Lane Spillback Time, h	never		never	never		
2	Base Free-Flow Speed, mph	45.76			45.77		
2	Running Time, s	18.90			19.12		
2	Running Speed, mph	40.58			40.12		
2	Through Delay, s/veh	37.77			11.50		
2	Travel Time, s	56.67			30.62		
2	Travel Speed, mph	13.54			25.05		
2	Stop Rate, stops/veh	0.75			0.37		
2	Spatial Stop Rate, stops/mi	3.52			1.72		
2	Through vol/cap Ratio	0.69			0.56		
2	Percent of Base FFS	29.58			54.74		
2	Level of Service	F			C		
2	Auto Traveler Perception Score	2.70			2.40		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	2.84		C	3.35		C
2	Bicycle Segment LOS Score / LOS	3.31		C	3.34		C
2	Transit Segment LOS Score / LOS	5.19		F	5.03		F

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	91.58	74.75
Facility Travel Speed, mph	14.70	18.01
Facility Base Free Flow Speed, mph	45.69	45.34
Facility Percent of Base FFS	32.18	39.73
Facility Level of Service	E	E
Facility Auto Traveler Perception Score	2.79	2.57

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.90	C	3.84	D
Bicycle Facility LOS Score / LOS	2.86	C	2.92	C
Transit Facility LOS Score / LOS	4.06	D	5.22	F

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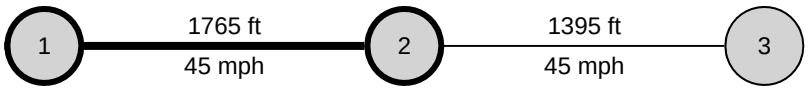
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Tank Farm Rd	S Higuera St/Granada Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Tank Farm Rd to Granada Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
1	45	45	2	2	1765	1765	115	115	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h				never	never	
1	Shared Lane Spillback Time, h				never		
1	Base Free-Flow Speed, mph	45.05			45.05		
1	Running Time, s	28.78			28.62		
1	Running Speed, mph	41.81			42.06		
1	Through Delay, s/veh	23.20			29.63		
1	Travel Time, s	51.98			58.24		
1	Travel Speed, mph	23.15			20.66		
1	Stop Rate, stops/veh	0.63			0.64		
1	Spatial Stop Rate, stops/mi	1.89			1.92		
1	Through vol/cap Ratio	0.92			0.59		
1	Percent of Base FFS	51.39			45.87		
1	Level of Service	C			D		
1	Auto Traveler Perception Score	2.65			2.66		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.30		C	3.99		D
1	Bicycle Segment LOS Score / LOS	2.57		B	3.00		C
1	Transit Segment LOS Score / LOS	3.62		D	3.82		D

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	93.09	87.61
Facility Travel Speed, mph	23.14	24.59
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	51.16	54.37
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.61	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.44	C	4.31	F
Bicycle Facility LOS Score / LOS	2.44	C	2.73	C
Transit Facility LOS Score / LOS	4.27	E	4.03	D

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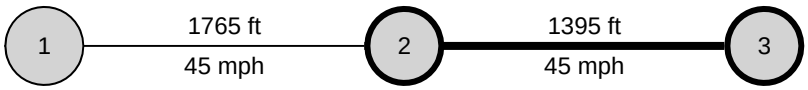
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	3
Analyst		Analysis Date	5/8/2018	Number of Segments	2
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	9. S Higuera St from Tank Farm	Analysis Year	2018	System Cycle Length, s	120
Intersections	S Higuera St/Granada Dr	S Higuera Street/Prado Rd		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (S Higuera St from Granada Dr to Prado Rd)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
2	45	45	2	2	1395	1395	85	110	0	0	70	70	0.0	0.0

		Northbound			Southbound		
Segment Output Data		NBL	NBT	NBR	SBL	SBT	SBR
Segment	Movement		6	16	5	2	
2	Bay/Lane Spillback Time, h		never				
2	Shared Lane Spillback Time, h	never					
2	Base Free-Flow Speed, mph	45.48			45.46		
2	Running Time, s	23.19			22.93		
2	Running Speed, mph	41.01			41.48		
2	Through Delay, s/veh	17.92			6.44		
2	Travel Time, s	41.11			29.37		
2	Travel Speed, mph	23.14			32.38		
2	Stop Rate, stops/veh	0.71			0.40		
2	Spatial Stop Rate, stops/mi	2.71			1.53		
2	Through vol/cap Ratio	0.63			0.55		
2	Percent of Base FFS	50.87			71.24		
2	Level of Service	C			B		
2	Auto Traveler Perception Score	2.56			2.37		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.63		D	4.72		F
2	Bicycle Segment LOS Score / LOS	2.28		B	2.39		B
2	Transit Segment LOS Score / LOS	5.09		F	4.29		E

Facility Output Data	Northbound	Southbound
Facility Travel Time, s	93.09	87.61
Facility Travel Speed, mph	23.14	24.59
Facility Base Free Flow Speed, mph	45.24	45.23
Facility Percent of Base FFS	51.16	54.37
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.61	2.52

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.44	C	4.31	F
Bicycle Facility LOS Score / LOS	2.44	C	2.73	C
Transit Facility LOS Score / LOS	4.27	E	4.03	D

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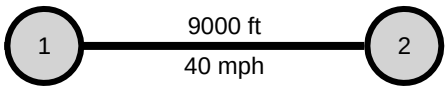
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	5/8/2018	Number of Segments	1
Jurisdiction	San Luis Obisbo	Time Period	PM Peak	Number of Iterations	15
File Name	10. Tank Farm Rd from S Higuer	Analysis Year	2018	System Cycle Length, s	120
Intersections	Broad St/Tank Farm Rd	Tank Farm Rd/S Higuera St		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Tank Farm Rd from Broad St to S Higuera St)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	40	40	1	2	9000	9000	135	90	1272	1272	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never			never		never
1	Base Free-Flow Speed, mph	42.38			43.15		
1	Running Time, s	155.28			145.62		
1	Running Speed, mph	39.52			42.14		
1	Through Delay, s/veh	21.35			33.39		
1	Travel Time, s	176.63			179.01		
1	Travel Speed, mph	34.74			34.28		
1	Stop Rate, stops/veh	0.62			0.74		
1	Spatial Stop Rate, stops/mi	0.37			0.44		
1	Through vol/cap Ratio	0.03			0.40		
1	Percent of Base FFS	81.97			79.44		
1	Level of Service	A			B		
1	Auto Traveler Perception Score	2.19			2.41		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS						
1	Bicycle Segment LOS Score / LOS	2.97		C	2.67		B
1	Transit Segment LOS Score / LOS						

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	176.63	179.01
Facility Travel Speed, mph	34.74	34.28
Facility Base Free Flow Speed, mph	42.38	43.15
Facility Percent of Base FFS	81.97	79.44
Facility Level of Service	A	B
Facility Auto Traveler Perception Score	2.19	2.41

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS				
Bicycle Facility LOS Score / LOS	2.97	C	2.67	C
Transit Facility LOS Score / LOS				

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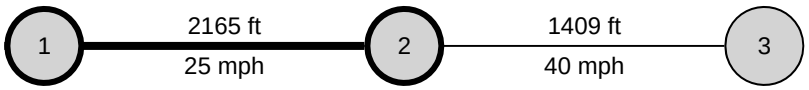
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Madonna Rd	LOVR/Oceanaire Drive		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Road)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
1	25	35	2	1	2165	2165	115	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
1	Bay/Lane Spillback Time, h		never			never	0.07
1	Shared Lane Spillback Time, h	never					0.41
1	Base Free-Flow Speed, mph	36.62			40.93		
1	Running Time, s	42.68			40.34		
1	Running Speed, mph	34.59			36.59		
1	Through Delay, s/veh	13.03			29.80		
1	Travel Time, s	55.71			70.14		
1	Travel Speed, mph	26.50			21.05		
1	Stop Rate, stops/veh	0.61			0.70		
1	Spatial Stop Rate, stops/mi	1.48			1.71		
1	Through vol/cap Ratio	0.41			0.27		
1	Percent of Base FFS	72.36			51.42		
1	Level of Service	B			C		
1	Auto Traveler Perception Score	2.36			2.40		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.67		B	4.26		E
1	Bicycle Segment LOS Score / LOS	3.28		C	2.48		B
1	Transit Segment LOS Score / LOS	2.67		B	3.30		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	108.84	114.38
Facility Travel Speed, mph	22.39	21.31
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	57.21	54.41
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.41	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.04	C	3.81	D
Bicycle Facility LOS Score / LOS	2.97	C	2.44	C
Transit Facility LOS Score / LOS	3.21	C	3.31	C

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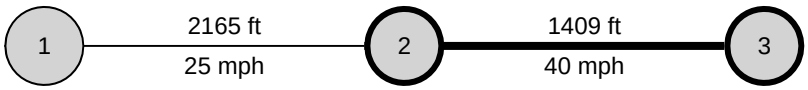
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency				Number of Intersections	3
Analyst	TJKM	Analysis Date	4/23/2018	Number of Segments	2
Jurisdiction	San Louis Obisbo	Time Period	AM	Number of Iterations	15
File Name	11. Madonna St from LOVR to D	Analysis Year	2018	System Cycle Length, s	123
Intersections	LOVR/Oceanaire Drive	Dalido Drive/Madonna Dr		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan EIR				



Basic Segment Information (Madonna Rd from Oceanaire Dr to Dalido Dr)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
2	40	25	2	2	1409	1409	90	90	0	0	70	70	0.0	0.0

		Eastbound			Westbound		
Segment Output Data		EBL	EBT	EBR	WBL	WBT	WBR
Segment	Movement	5	2	12	1	6	16
2	Bay/Lane Spillback Time, h		never			never	
2	Shared Lane Spillback Time, h	never		never	never		never
2	Base Free-Flow Speed, mph	43.76			36.71		
2	Running Time, s	25.09			29.59		
2	Running Speed, mph	38.29			32.47		
2	Through Delay, s/veh	28.04			14.65		
2	Travel Time, s	53.13			44.24		
2	Travel Speed, mph	18.08			21.72		
2	Stop Rate, stops/veh	0.62			0.75		
2	Spatial Stop Rate, stops/mi	2.32			2.82		
2	Through vol/cap Ratio	0.41			0.60		
2	Percent of Base FFS	41.32			59.16		
2	Level of Service	D			C		
2	Auto Traveler Perception Score	2.50			2.58		
Multimodal Results (Segment)							
2	Pedestrian Segment LOS Score / LOS	3.61		D	3.12		C
2	Bicycle Segment LOS Score / LOS	2.50		B	2.39		B
2	Transit Segment LOS Score / LOS	4.04		D	3.31		C

Facility Output Data	Eastbound	Westbound
Facility Travel Time, s	108.84	114.38
Facility Travel Speed, mph	22.39	21.31
Facility Base Free Flow Speed, mph	39.14	39.15
Facility Percent of Base FFS	57.21	54.41
Facility Level of Service	C	C
Facility Auto Traveler Perception Score	2.41	2.47

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.04	C	3.81	F
Bicycle Facility LOS Score / LOS	2.97	C	2.44	C
Transit Facility LOS Score / LOS	3.21	C	3.31	C

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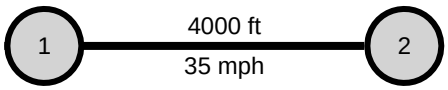
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	AM Peak Period	Number of Iterations	15
File Name	12. Froom Ranch from LOVR to	Analysis Year	2019	System Cycle Length, s	120
Intersections	Froom Ranch Way/Dalidio Drive	Froom Ranch Way/LOVR		Analysis Period	1> 7:00
Project Description	Froom Ranch TIS				



Basic Segment Information (Froom Ranch Way between LOVR and Dalido Drive)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	35	35	1	1	4000	4000	120	100	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h		never		never	never	
1	Shared Lane Spillback Time, h				never		never
1	Base Free-Flow Speed, mph	41.08			41.09		
1	Running Time, s	68.69			69.13		
1	Running Speed, mph	39.70			39.45		
1	Through Delay, s/veh	30.54			23.96		
1	Travel Time, s	99.23			93.09		
1	Travel Speed, mph	27.48			29.30		
1	Stop Rate, stops/veh	0.82			0.60		
1	Spatial Stop Rate, stops/mi	1.08			0.80		
1	Through vol/cap Ratio	0.47			0.42		
1	Percent of Base FFS	66.90			71.30		
1	Level of Service	C			B		
1	Auto Traveler Perception Score	2.30			2.26		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	3.11		C	2.97		C
1	Bicycle Segment LOS Score / LOS	1.46		A	0.93		A
1	Transit Segment LOS Score / LOS	1.10		A	0.39		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	99.23	93.09
Facility Travel Speed, mph	27.48	29.30
Facility Base Free Flow Speed, mph	41.08	41.09
Facility Percent of Base FFS	66.90	71.30
Facility Level of Service	C	B
Facility Auto Traveler Perception Score	2.30	2.26

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	3.11	C	2.97	C
Bicycle Facility LOS Score / LOS	1.46	A	0.93	A
Transit Facility LOS Score / LOS	1.10	A	0.39	A

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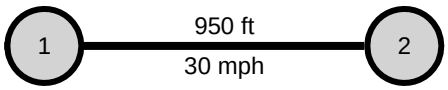
HCS7 Urban Street Segment Report

General Information				Streets Information	
Agency	TJKM			Number of Intersections	2
Analyst		Analysis Date	Jan 14, 2019	Number of Segments	1
Jurisdiction	San Luis Obispo	Time Period	PM Peak Period	Number of Iterations	15
File Name	13. Collector A from LOVR to Co	Analysis Year	2018	System Cycle Length, s	120
Intersections	LOVR/Collector A	Collector A/Collector B		Analysis Period	1> 7:00
Project Description	Froom Ranch Specific Plan TIS				



Basic Segment Information (Commercial Collector A)

Segment	Speed Limit		Through Lanes		Segment Length		Intersection Wid		Length of RM		Percent Curb		Other Delay	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
1	30	30	1	1	950	950	50	50	0	0	70	70	0.0	0.0

		Westbound			Eastbound		
Segment Output Data		WBL	WBT	WBR	EBL	EBT	EBR
Segment	Movement	1	6	16	5	2	12
1	Bay/Lane Spillback Time, h		never			never	
1	Shared Lane Spillback Time, h	never		never			
1	Base Free-Flow Speed, mph	39.37			39.37		
1	Running Time, s	19.70			19.68		
1	Running Speed, mph	32.88			32.92		
1	Through Delay, s/veh	2.02			0.00		
1	Travel Time, s	21.72			19.68		
1	Travel Speed, mph	29.82			32.92		
1	Stop Rate, stops/veh	0.10			0.00		
1	Spatial Stop Rate, stops/mi	0.56			0.00		
1	Through vol/cap Ratio	0.13			0.00		
1	Percent of Base FFS	75.75			83.61		
1	Level of Service	B			A		
1	Auto Traveler Perception Score	2.43			2.34		
Multimodal Results (Segment)							
1	Pedestrian Segment LOS Score / LOS	2.51		B	2.85		C
1	Bicycle Segment LOS Score / LOS	2.59		B	2.50		B
1	Transit Segment LOS Score / LOS	0.67		A	0.66		A

Facility Output Data	Westbound	Eastbound
Facility Travel Time, s	21.72	19.68
Facility Travel Speed, mph	29.82	32.92
Facility Base Free Flow Speed, mph	39.37	39.37
Facility Percent of Base FFS	75.75	83.61
Facility Level of Service	B	A
Facility Auto Traveler Perception Score	2.43	2.34

Multimodal Results (Facility)				
Pedestrian Facility LOS Score / LOS	2.51	C	2.85	C
Bicycle Facility LOS Score / LOS	2.59	C	2.50	C
Transit Facility LOS Score / LOS	0.67	A	0.66	A

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Appenidx D – Freeway Mainline and Ramp Analysis Calculation Sheets (HCS 6th Edition)

HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 Northbound south of Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2336	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1289
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.55
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2374	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1310
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2601	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1435
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1991	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1098
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.47
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions AM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2601	546
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2885	606
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.61	0.30

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.483
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	53.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2885	Ramp Junction Speed (S), mi/h	53.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	26.8
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	26.9

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1. US 101 NB LOVR Off Ramp_AM Peak.xuf

HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions PM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	1991	634
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2208	703
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.47	0.35

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.491
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	53.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2208	Ramp Junction Speed (S), mi/h	53.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	20.6
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	21.1

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1. US 101 NB LOVR Off Ramp_PM Peak.xuf

HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions AM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2601	215
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2823	233
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.65	0.12

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.360
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2823	Ramp Junction Speed (S), mi/h	56.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	3056	Average Density (D), pc/mi/ln	26.9
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	25.4

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1. US 101 NB LOVR On Ramp_AM Peak.xuf

HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions AM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	1991	392
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2161	426
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.55	0.21

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.329
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2161	Ramp Junction Speed (S), mi/h	57.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	2587	Average Density (D), pc/mi/ln	22.5
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	21.6

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1. US 101 NB LOVR On Ramp_PM Peak.xuf

HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2311	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1275
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.54
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2224	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1227
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.52
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions AM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2311	225
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2563	250
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.58	0.13

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.450
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	54.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2563	Ramp Junction Speed (S), mi/h	54.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	23.5
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	20.7

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions PM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2224	145
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2467	161
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.56	0.08

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.442
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	54.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2467	Ramp Junction Speed (S), mi/h	54.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	22.5
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	19.9

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HCS7 Freeway Merge Report

Project Information

Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions AM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2311	250
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2509	271
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.59	0.14

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.352
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2509	Ramp Junction Speed (S), mi/h	56.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	2780	Average Density (D), pc/mi/ln	24.4
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	24.3

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2. US 101 NB Prado On Ramp_AM Peak.xuf

HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions PM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2224	495
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2414	537
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.63	0.27

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.364
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2414	Ramp Junction Speed (S), mi/h	56.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	2951	Average Density (D), pc/mi/ln	26.1
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	25.5

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2. US 101 NB Prado On Ramp_PM Peak.xuf

HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2843	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1568
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.67
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3097	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1709
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.73
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions AM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2843	279
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3153	309
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.72	0.15

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.456
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	54.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	3153	Ramp Junction Speed (S), mi/h	54.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	28.9
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	29.6

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions PM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	3097	349
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3435	387
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.78	0.19

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.463
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3435	Ramp Junction Speed (S), mi/h	54.4
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	31.6
Level of Service (LOS)	D	Density in Ramp Influence Area (D_R), pc/mi/ln	32.0

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1968	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1086
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.46
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2926	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1614
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.69
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions AM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	1968	179
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2136	194
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.50	0.10

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.347
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2136	Ramp Junction Speed (S), mi/h	57.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	2330	Average Density (D), pc/mi/ln	20.4
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	22.4

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3. US 101 SB Maddona Road On Ramp_AM Peak.xuf

HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions PM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2926	348
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3176	378
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.76	0.19

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.443
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	54.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3176	Ramp Junction Speed (S), mi/h	54.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	3554	Average Density (D), pc/mi/ln	32.4
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	31.8

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1828	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1008
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.43
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	15.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2976	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1642
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1213	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	670
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.28
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	10.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2211	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1220
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.52
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions AM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	1213	587
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	1345	651
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.31	0.33

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.487
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	53.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	1345	Ramp Junction Speed (S), mi/h	53.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	12.5
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	10.9

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4. US 101 SB LOVR Off Ramp_AM Peak.xuf

HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions PM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2211	557
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2452	618
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.56	0.31

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.484
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	53.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2452	Ramp Junction Speed (S), mi/h	53.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	22.7
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	20.4

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4. US 101 SB LOVR Off Ramp_PM Peak.xuf

HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions AM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	1213	359
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	1317	390
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.36	0.20

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.314
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	1317	Ramp Junction Speed (S), mi/h	57.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	1707	Average Density (D), pc/mi/ln	14.8
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	16.1

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4. US 101 SB LOVR On Ramp_AM Peak.xuf

HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Conditions PM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2211	667
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2400	724
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.36

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.381
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.2
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2400	Ramp Junction Speed (S), mi/h	56.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	3124	Average Density (D), pc/mi/ln	27.8
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	27.0

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4. US 101 SB LOVR On Ramp_PM Peak.xuf

HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2177	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1201
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3519	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1942
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	31.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2348	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1296
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.55
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2392	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1320
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2613	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1442
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2009	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1108
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.47
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Plus Project Conditions AM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2613	558
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2898	619
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.62	0.31

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.484
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	53.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2898	Ramp Junction Speed (S), mi/h	53.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	26.9
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	27.1

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Plus Project Conditions PM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	2009	652
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2228	723
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.47	0.36

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.493
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2228	Ramp Junction Speed (S), mi/h	53.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	20.7
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	21.3

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing plus Project Conditions AM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2613	237
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2837	257
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.13

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.363
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2837	Ramp Junction Speed (S), mi/h	56.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	3094	Average Density (D), pc/mi/ln	27.3
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	25.6

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing plus Project Conditions AM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2009	415
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2181	450
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.56	0.23

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.331
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2181	Ramp Junction Speed (S), mi/h	57.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	2631	Average Density (D), pc/mi/ln	22.9
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	21.9

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2333	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1287
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.55
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2247	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1240
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Plus Project Conditions AM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	2333	225
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2588	250
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.59	0.13

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.450
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2588	Ramp Junction Speed (S), mi/h	54.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	23.7
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	20.9

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Plus Project Conditions PM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	2247	145
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2492	161
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.57	0.08

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.442
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2492	Ramp Junction Speed (S), mi/h	54.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	22.7
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	20.1

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing plus Project Conditions AM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2333	250
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2533	271
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.60	0.14

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.354
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2533	Ramp Junction Speed (S), mi/h	56.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	2804	Average Density (D), pc/mi/ln	24.6
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	24.4

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HCS7 Freeway Merge Report

Project Information

Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing plus Project Conditions PM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2247	495
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2439	537
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.63	0.27

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.366
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2439	Ramp Junction Speed (S), mi/h	56.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	2976	Average Density (D), pc/mi/ln	26.3
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	25.7

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2865	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1581
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.67
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3120	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1722
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.73
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	27.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Plus Project Conditions AM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	2865	279
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3178	309
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.72	0.15

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.456
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3178	Ramp Junction Speed (S), mi/h	54.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	29.2
Level of Service (LOS)	D	Density in Ramp Influence Area (D_R), pc/mi/ln	29.8

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Plus Project Conditions PM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	3120	349
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3461	387
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.79	0.19

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.463
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3461	Ramp Junction Speed (S), mi/h	54.4
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	31.8
Level of Service (LOS)	D	Density in Ramp Influence Area (D_R), pc/mi/ln	32.2

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1986	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1096
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.47
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2952	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1629
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.69
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Plus Project Conditions AM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	1986	179
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2156	194
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.50	0.10

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.348
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2156	Ramp Junction Speed (S), mi/h	57.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	2350	Average Density (D), pc/mi/ln	20.6
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	22.5

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Plus Project Conditions PM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2952	348
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3205	378
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.76	0.19

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.447
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	54.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3205	Ramp Junction Speed (S), mi/h	54.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	3583	Average Density (D), pc/mi/ln	32.8
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	32.1

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1846	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1018
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.43
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	15.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3002	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1656
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	25.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1228	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	678
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.29
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	10.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2226	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1228
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.52
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Plus Project Conditions AM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	1228	605
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	1362	671
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.31	0.34

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.488
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	1362	Ramp Junction Speed (S), mi/h	53.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	12.7
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	11.1

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Plus Project Conditions PM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2226	583
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2469	647
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.56	0.32

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.486
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2469	Ramp Junction Speed (S), mi/h	53.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	22.9
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	20.6

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing plus Project Conditions AM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	1228	374
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	1333	406
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.37	0.20

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.314
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	1333	Ramp Junction Speed (S), mi/h	57.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	1739	Average Density (D), pc/mi/ln	15.0
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	16.4

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Existing Plus Project Conditions PM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2226	682
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2416	740
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.67	0.37

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.384
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.2
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2416	Ramp Junction Speed (S), mi/h	56.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	3156	Average Density (D), pc/mi/ln	28.1
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	27.3

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing plus Project Conditions
Jurisdiction	San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2192	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1210
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Existing Conditions 2018
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3534	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1950
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	32.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2530	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1396
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.59
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2571	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1418
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.60
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2817	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1554
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.66
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2156	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1190
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - AM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2817	675
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3124	749
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.37

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.495
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3124	Ramp Junction Speed (S), mi/h	53.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	29.1
Level of Service (LOS)	D	Density in Ramp Influence Area (D_R), pc/mi/ln	29.0

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - PM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	2156	702
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2391	779
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.51	0.39

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.498
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2391	Ramp Junction Speed (S), mi/h	53.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	22.3
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	22.7

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - AM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2817	146
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3058	158
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.68	0.08

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.374
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3058	Ramp Junction Speed (S), mi/h	56.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	3216	Average Density (D), pc/mi/ln	28.5
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	26.6

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - AM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2156	490
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2340	532
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.61	0.27

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.346
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2340	Ramp Junction Speed (S), mi/h	57.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	2872	Average Density (D), pc/mi/ln	25.2
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	23.8

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2502	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1380
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.59
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2408	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1328
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.57
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - AM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	2502	456
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2775	506
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.63	0.25

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.474
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.1
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2775	Ramp Junction Speed (S), mi/h	54.1
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	25.6
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	22.5

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - PM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2408	227
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2671	252
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.61	0.13

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.451
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2671	Ramp Junction Speed (S), mi/h	54.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	24.5
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	21.6

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - AM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2502	367
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2716	398
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.20

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.377
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.3
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2716	Ramp Junction Speed (S), mi/h	56.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	3114	Average Density (D), pc/mi/ln	27.7
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	26.8

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - PM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2408	402
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2614	436
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.65	0.22

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.371
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2614	Ramp Junction Speed (S), mi/h	56.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	3050	Average Density (D), pc/mi/ln	27.0
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	26.3

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3079	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1133
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.48
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3354	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1234
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.52
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - AM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	3079	310
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3415	344
Capacity (c), pc/h	6600	2000
Volume-to-Capacity Ratio (v/c)	0.52	0.17

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.459
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1047
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.659	Outer Lanes Freeway Speed (S_O), mi/h	71.1
Flow in Lanes 1 and 2 (v_{12}), pc/h	2368	Ramp Junction Speed (S), mi/h	58.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	19.4
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	22.8

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - PM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	3354	268
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3720	297
Capacity (c), pc/h	6600	2000
Volume-to-Capacity Ratio (v/c)	0.56	0.15

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.455
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1188
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.653	Outer Lanes Freeway Speed (S_O), mi/h	70.6
Flow in Lanes 1 and 2 (v_{12}), pc/h	2532	Ramp Junction Speed (S), mi/h	58.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	21.1
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	24.2

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2131	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1176
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.50
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3168	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1748
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.74
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	27.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Merge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - AM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2131	190
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2313	206
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.54	0.10

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.355
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2313	Ramp Junction Speed (S), mi/h	56.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	2519	Average Density (D), pc/mi/ln	22.2
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	23.8

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - PM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3168	278
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3439	302
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.80	0.15

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.471
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	54.2
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3439	Ramp Junction Speed (S), mi/h	54.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	3741	Average Density (D), pc/mi/ln	34.5
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	33.3

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1979	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1092
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.46
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3223	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1778
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.76
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	28.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1314	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	725
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.31
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	11.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2394	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1321
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - AM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	1314	608
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	1457	674
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.33	0.34

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.489
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	1457	Ramp Junction Speed (S), mi/h	53.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	13.5
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	11.9

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - PM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2394	542
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2655	601
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.60	0.30

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.482
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.9
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2655	Ramp Junction Speed (S), mi/h	53.9
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	24.6
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	22.2

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HCS7 Freeway Merge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - AM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1314	392
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	1426	426
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.39	0.21

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.317
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	1426	Ramp Junction Speed (S), mi/h	57.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	1852	Average Density (D), pc/mi/ln	16.0
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.2

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 1 - PM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2394	708
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2599	769
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.72	0.38

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.405
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	55.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2599	Ramp Junction Speed (S), mi/h	55.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	3368	Average Density (D), pc/mi/ln	30.2
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	28.9

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2357	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1300
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.55
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3811	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2102
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.89
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	58.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	36.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Scenario 1 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB, south of S Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2542	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1402
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.60
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Scenario 1 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB, south of S Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2589	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1428
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Scenario 1 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2829	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1561
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.66
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2174	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1200
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - AM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2829	687
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3138	762
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.67	0.38

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.497
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3138	Ramp Junction Speed (S), mi/h	53.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	29.3
Level of Service (LOS)	D	Density in Ramp Influence Area (D_R), pc/mi/ln	29.1

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - PM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	2174	720
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2411	799
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.51	0.40

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.500
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2411	Ramp Junction Speed (S), mi/h	53.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	22.5
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	22.9

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - AM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2829	168
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3071	182
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.69	0.09

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.378
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.3
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3071	Ramp Junction Speed (S), mi/h	56.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	3253	Average Density (D), pc/mi/ln	28.9
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	26.9

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - PM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2174	513
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2360	557
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.62	0.28

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.349
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2360	Ramp Junction Speed (S), mi/h	57.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	2917	Average Density (D), pc/mi/ln	25.6
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	24.1

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2524	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1392
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.59
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2431	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1342
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.57
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - AM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	2524	456
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2799	506
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.64	0.25

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.474
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.1
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2799	Ramp Junction Speed (S), mi/h	54.1
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	25.9
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	22.7

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - PM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	2431	227
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2696	252
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.61	0.13

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.451
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2696	Ramp Junction Speed (S), mi/h	54.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	24.7
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	21.9

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - AM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2524	367
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2740	398
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.67	0.20

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.379
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.3
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2740	Ramp Junction Speed (S), mi/h	56.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	3138	Average Density (D), pc/mi/ln	27.9
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	27.0

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - PM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2431	402
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2639	436
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.65	0.22

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.374
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2639	Ramp Junction Speed (S), mi/h	56.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	3075	Average Density (D), pc/mi/ln	27.3
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	26.5

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3101	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1141
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3377	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1242
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.53
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	19.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - AM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	3101	310
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3439	344
Capacity (c), pc/h	6600	2000
Volume-to-Capacity Ratio (v/c)	0.52	0.17

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.459
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1058
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.658	Outer Lanes Freeway Speed (S_O), mi/h	71.1
Flow in Lanes 1 and 2 (v_{12}), pc/h	2381	Ramp Junction Speed (S), mi/h	58.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	19.6
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	22.9

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - PM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	3377	268
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3746	297
Capacity (c), pc/h	6600	2000
Volume-to-Capacity Ratio (v/c)	0.57	0.15

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.455
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1197
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.653	Outer Lanes Freeway Speed (S_O), mi/h	70.5
Flow in Lanes 1 and 2 (v_{12}), pc/h	2549	Ramp Junction Speed (S), mi/h	58.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	21.2
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	24.4

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2149	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1186
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.50
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3194	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1762
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	27.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - AM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2149	190
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2333	206
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.54	0.10

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.356
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2333	Ramp Junction Speed (S), mi/h	56.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	2539	Average Density (D), pc/mi/ln	22.4
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	24.0

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - PM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3194	278
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3467	302
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.80	0.15

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.476
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	54.1
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3467	Ramp Junction Speed (S), mi/h	54.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	3769	Average Density (D), pc/mi/ln	34.8
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	33.6

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1997	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1102
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.47
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3249	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1792
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.76
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	62.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	28.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1329	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	734
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.31
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	11.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2409	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1329
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.57
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - AM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	1329	626
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	1474	694
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.34	0.35

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.490
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	1474	Ramp Junction Speed (S), mi/h	53.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	13.7
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	12.0

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - PM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2409	568
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2672	630
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.61	0.32

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.485
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2672	Ramp Junction Speed (S), mi/h	53.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	24.8
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	22.3

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HCS7 Freeway Merge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - AM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1329	407
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	1443	442
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.40	0.22

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.318
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	1443	Ramp Junction Speed (S), mi/h	57.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	1885	Average Density (D), pc/mi/ln	16.3
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.5

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 1 - PM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2409	723
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2615	785
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.72	0.39

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.409
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	55.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2615	Ramp Junction Speed (S), mi/h	55.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	3400	Average Density (D), pc/mi/ln	30.6
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	29.1

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB, north of S Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2372	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1309
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) plus Project Conditions - Scenario 1
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB, north of S Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3826	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2111
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.90
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	57.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	36.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2530	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1396
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.59
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2571	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1418
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.60
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2817	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1554
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.66
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2156	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1190
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - AM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2817	688
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3124	763
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.38

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.497
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	53.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	3124	Ramp Junction Speed (S), mi/h	53.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	29.1
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	29.0

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - PM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2156	724
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2391	803
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.51	0.40

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.500
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2391	Ramp Junction Speed (S), mi/h	53.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	22.3
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	22.7

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - AM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2817	179
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3058	194
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.69	0.10

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.378
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.3
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3058	Ramp Junction Speed (S), mi/h	56.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	3252	Average Density (D), pc/mi/ln	28.9
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	26.9

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - PM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2156	496
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2340	538
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.61	0.27

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.347
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2340	Ramp Junction Speed (S), mi/h	57.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	2878	Average Density (D), pc/mi/ln	25.2
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	23.8

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2491	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1374
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.58
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2564	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1414
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.60
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - AM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2491	312
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2763	346
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.63	0.17

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.459
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	54.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2763	Ramp Junction Speed (S), mi/h	54.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	25.4
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	22.4

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - PM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2564	143
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2844	159
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.65	0.08

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.442
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2844	Ramp Junction Speed (S), mi/h	54.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	25.9
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	23.1

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - AM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2491	323
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2704	351
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.65	0.18

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.372
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2704	Ramp Junction Speed (S), mi/h	56.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	3055	Average Density (D), pc/mi/ln	27.1
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	26.4

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - PM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2564	552
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2783	599
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.72	0.30

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.404
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	55.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2783	Ramp Junction Speed (S), mi/h	55.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	3382	Average Density (D), pc/mi/ln	30.4
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	28.8

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3062	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1690
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.72
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3427	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1891
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.80
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	61.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - AM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	3062	293
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3396	325
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.77	0.16

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.457
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3396	Ramp Junction Speed (S), mi/h	54.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	31.2
Level of Service (LOS)	D	Density in Ramp Influence Area (D_R), pc/mi/ln	31.7

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - PM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	3427	341
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3801	378
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.86	0.19

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.462
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3801	Ramp Junction Speed (S), mi/h	54.4
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	34.9
Level of Service (LOS)	E	Density in Ramp Influence Area (D_R), pc/mi/ln	35.1

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2131	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1176
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.50
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3168	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1748
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.74
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	27.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - AM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2131	259
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2313	281
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.55	0.14

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.359
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2313	Ramp Junction Speed (S), mi/h	56.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	2594	Average Density (D), pc/mi/ln	22.9
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	24.4

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - PM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3168	386
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3439	419
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.82	0.21

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.492
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	53.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3439	Ramp Junction Speed (S), mi/h	53.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	3858	Average Density (D), pc/mi/ln	35.9
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	34.2

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2048	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1130
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.48
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3331	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1838
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.78
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	62.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	29.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1314	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	725
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.31
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	11.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2394	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1321
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - AM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	1314	672
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	1457	745
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.33	0.37

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.495
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	1457	Ramp Junction Speed (S), mi/h	53.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	13.6
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	11.9

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - PM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	2394	619
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2655	687
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.60	0.34

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.490
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2655	Ramp Junction Speed (S), mi/h	53.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	24.7
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	22.2

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - AM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	1314	404
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	1426	439
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.40	0.22

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.317
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	1426	Ramp Junction Speed (S), mi/h	57.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	1865	Average Density (D), pc/mi/ln	16.2
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.3

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HCS7 Freeway Merge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Conditions Scenario 2 - PM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2394	755
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2599	820
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.73	0.41

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.411
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	55.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2599	Ramp Junction Speed (S), mi/h	55.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	3419	Average Density (D), pc/mi/ln	30.8
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	29.3

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 1
Jurisdiction	San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2369	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1307
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3858	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2128
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.91
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	57.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	37.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at S Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2542	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1402
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.60
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at S Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2589	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1428
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2829	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1561
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.66
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2174	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1200
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - AM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	2829	700
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3138	776
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.67	0.39

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.498
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3138	Ramp Junction Speed (S), mi/h	53.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	29.3
Level of Service (LOS)	D	Density in Ramp Influence Area (D_R), pc/mi/ln	29.1

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - PM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2174	742
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2411	823
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.51	0.41

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.502
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2411	Ramp Junction Speed (S), mi/h	53.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	22.5
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	22.9

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - AM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2829	201
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3071	218
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.70	0.11

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.382
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.2
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3071	Ramp Junction Speed (S), mi/h	56.2
Flow Entering Ramp-Infl. Area (vR12), pc/h	3289	Average Density (D), pc/mi/ln	29.3
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	27.2

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - PM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2174	519
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2360	563
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.62	0.28

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.350
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.0
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2360	Ramp Junction Speed (S), mi/h	57.0
Flow Entering Ramp-Infl. Area (vR12), pc/h	2923	Average Density (D), pc/mi/ln	25.6
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	24.2

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2513	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1386
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.59
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	21.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2587	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1428
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - AM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2513	312
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2787	346
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.63	0.17

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.459
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	54.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2787	Ramp Junction Speed (S), mi/h	54.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	25.6
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	22.6

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - PM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2587	143
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2869	159
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.65	0.08

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.442
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2869	Ramp Junction Speed (S), mi/h	54.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	26.2
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	23.3

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - AM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2513	323
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2728	351
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.66	0.18

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.374
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2728	Ramp Junction Speed (S), mi/h	56.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	3079	Average Density (D), pc/mi/ln	27.3
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	26.5

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - PM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2587	552
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2808	599
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.72	0.30

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.407
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	55.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2808	Ramp Junction Speed (S), mi/h	55.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	3407	Average Density (D), pc/mi/ln	30.6
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	29.0

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3084	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1702
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.72
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3450	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1904
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.81
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	61.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	31.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - AM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	3084	293
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3421	325
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.78	0.16

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.457
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3421	Ramp Junction Speed (S), mi/h	54.5
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	31.4
Level of Service (LOS)	D	Density in Ramp Influence Area (D_R), pc/mi/ln	31.9

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - PM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	3450	341
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3827	378
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.87	0.19

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.462
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.4
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3827	Ramp Junction Speed (S), mi/h	54.4
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	35.2
Level of Service (LOS)	E	Density in Ramp Influence Area (D_R), pc/mi/ln	35.4

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2149	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1186
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.50
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3194	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1762
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	27.9
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - AM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2149	259
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2333	281
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.56	0.14

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.360
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2333	Ramp Junction Speed (S), mi/h	56.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	2614	Average Density (D), pc/mi/ln	23.1
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	24.6

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HCS7 Freeway Merge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - PM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3194	386
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3467	419
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.83	0.21

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.497
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	53.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3467	Ramp Junction Speed (S), mi/h	53.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	3886	Average Density (D), pc/mi/ln	36.2
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	34.4

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2066	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1140
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3357	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1852
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.79
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	62.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	29.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1329	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	734
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.31
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	11.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2409	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1329
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.57
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - AM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	1329	690
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	1474	765
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.34	0.38

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.497
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	1474	Ramp Junction Speed (S), mi/h	53.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	13.8
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	12.0

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - PM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	2409	645
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2672	715
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.61	0.36

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.492
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2672	Ramp Junction Speed (S), mi/h	53.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	24.9
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	22.3

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - AM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	1329	419
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	1443	455
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.40	0.23

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.318
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	1443	Ramp Junction Speed (S), mi/h	57.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	1898	Average Density (D), pc/mi/ln	16.4
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.6

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HCS7 Freeway Merge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Near Term (2025) Plus Project Conditions Scenario 2 - PM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2409	770
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2615	836
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.73	0.42

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.415
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	55.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2615	Ramp Junction Speed (S), mi/h	55.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	3451	Average Density (D), pc/mi/ln	31.1
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	29.5

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at S higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2384	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1316
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Near Term (2025) Plus Project Conditions - Scenario 2
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at S higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3873	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2137
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.91
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	57.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	37.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Measured	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	-
Lane Width, ft	-	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	-		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2794	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1028
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.44
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	-	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	-	Density (D), pc/mi/ln	15.8
Total Ramp Density Adjustment	-	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2840	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1045
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.44
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3111	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1144
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2382	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	876
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.37
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	13.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - AM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3111	774
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3451	858
Capacity (c), pc/h	7050	2000
Volume-to-Capacity Ratio (v/c)	0.49	0.43

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.505
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	949
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	53.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	0.634	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2502	Ramp Junction Speed (S), mi/h	57.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	20.0
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	23.7

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - PM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2382	682
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2642	756
Capacity (c), pc/h	7050	2000
Volume-to-Capacity Ratio (v/c)	0.37	0.38

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.496
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	643
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.659	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	1999	Ramp Junction Speed (S), mi/h	57.0
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	15.5
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	19.3

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - AM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3111	164
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3377	178
Capacity (c), pc/h	7050	2000
Volume-to-Capacity Ratio (v/c)	0.50	0.09

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.312
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	1368
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	0.595	Outer Lanes Freeway Speed (SO), mi/h	61.9
Flow in Lanes 1 and 2 (v12), pc/h	2009	Ramp Junction Speed (S), mi/h	59.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	2187	Average Density (D), pc/mi/ln	20.0
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	18.6

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - PM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2382	444
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2586	482
Capacity (c), pc/h	7050	2000
Volume-to-Capacity Ratio (v/c)	0.44	0.24

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.307
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	1047
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	0.595	Outer Lanes Freeway Speed (SO), mi/h	63.0
Flow in Lanes 1 and 2 (v12), pc/h	1539	Ramp Junction Speed (S), mi/h	59.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	2021	Average Density (D), pc/mi/ln	17.2
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.2

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2764	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1017
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.43
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	15.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2660	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	978
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.42
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	15.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - AM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2764	605
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3066	671
Capacity (c), pc/h	6600	2000
Volume-to-Capacity Ratio (v/c)	0.46	0.34

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.488
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	833
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.652	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2233	Ramp Junction Speed (S), mi/h	57.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	17.7
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	17.9

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - PM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2660	202
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2950	224
Capacity (c), pc/h	6600	2000
Volume-to-Capacity Ratio (v/c)	0.45	0.11

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.448
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	883
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	54.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	0.676	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2067	Ramp Junction Speed (S), mi/h	58.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	16.7
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	16.4

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - AM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2764	436
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3000	473
Capacity (c), pc/h	7050	2000
Volume-to-Capacity Ratio (v/c)	0.49	0.24

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.326
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	1230
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	0.590	Outer Lanes Freeway Speed (SO), mi/h	62.4
Flow in Lanes 1 and 2 (v12), pc/h	1770	Ramp Junction Speed (S), mi/h	59.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	2243	Average Density (D), pc/mi/ln	19.6
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	20.0

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - PM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2660	793
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2888	861
Capacity (c), pc/h	7050	2000
Volume-to-Capacity Ratio (v/c)	0.53	0.43

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.340
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	1184
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.2
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	0.590	Outer Lanes Freeway Speed (SO), mi/h	62.5
Flow in Lanes 1 and 2 (v12), pc/h	1704	Ramp Junction Speed (S), mi/h	58.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	2565	Average Density (D), pc/mi/ln	21.3
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	22.3

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3401	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	938
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.40
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	14.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3704	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1022
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.43
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	15.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - AM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	3401	228
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3772	253
Capacity (c), pc/h	8800	2000
Volume-to-Capacity Ratio (v/c)	0.43	0.13

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	2
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.451
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	993
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	1787	Ramp Junction Speed (S), mi/h	62.3
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	15.1
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	17.8

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - PM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (V_i)	3704	231
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	4108	256
Capacity (c), pc/h	8800	2000
Volume-to-Capacity Ratio (v/c)	0.47	0.13

Speed and Density			
Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	2
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.451
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1087
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	71.0
Flow in Lanes 1 and 2 (v_{12}), pc/h	1935	Ramp Junction Speed (S), mi/h	62.2
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	16.5
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	19.1

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2354	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1299
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.55
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3500	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1931
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	61.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	31.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - AM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2354	190
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2555	206
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.59	0.10

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.369
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2555	Ramp Junction Speed (S), mi/h	56.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	2761	Average Density (D), pc/mi/ln	24.4
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	25.7

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - PM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3500	292
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3799	317
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.88	0.16

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.546
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	52.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3799	Ramp Junction Speed (S), mi/h	52.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	4116	Average Density (D), pc/mi/ln	39.3
Level of Service (LOS)	E	Density in Ramp Influence Area (DR), pc/mi/ln	36.3

HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2187	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1206
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3560	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1964
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	32.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - AM Peak
Project Description	US 101 SB Prado Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2187	638
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2426	708
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.55	0.35

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.492
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	53.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2426	Ramp Junction Speed (S), mi/h	53.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	22.6
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	20.2

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - AM Peak
Project Description	US 101 SB Prado Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3560	372
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3949	413
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.90	0.21

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.465
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	54.3
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	3949	Ramp Junction Speed (S), mi/h	54.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	36.4
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	33.3

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HCS7 Freeway Merge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - AM Peak
Project Description	US 101 SB Prado Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2187	114
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2374	124
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.53	0.06

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.354
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2374	Ramp Junction Speed (S), mi/h	56.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	2498	Average Density (D), pc/mi/ln	22.0
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	23.7

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - PM Peak
Project Description	US 101 SB Prado Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3560	173
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3865	188
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.86	0.09

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.532
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	52.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3865	Ramp Junction Speed (S), mi/h	52.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	4053	Average Density (D), pc/mi/ln	38.4
Level of Service (LOS)	E	Density in Ramp Influence Area (DR), pc/mi/ln	35.8

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1451	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	800
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.34
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2645	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1460
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.62
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - AM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	1451	688
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	1609	763
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.37	0.38

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.497
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	1609	Ramp Junction Speed (S), mi/h	53.6
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	15.0
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	13.2

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - PM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2645	372
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2934	413
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.67	0.21

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.465
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	54.3
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2934	Ramp Junction Speed (S), mi/h	54.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	27.0
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	24.6

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - AM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	1451	516
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	1575	560
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.45	0.28

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.325
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	1575	Ramp Junction Speed (S), mi/h	57.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	2135	Average Density (D), pc/mi/ln	18.6
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	19.4

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HCS7 Freeway Merge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Conditions - PM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	2645	728
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2871	790
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.78	0.40

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.444
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	54.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2871	Ramp Junction Speed (S), mi/h	54.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	3661	Average Density (D), pc/mi/ln	33.4
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	31.2

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2604	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1437
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4209	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2322
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.99
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	53.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	43.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Measured	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	-
Lane Width, ft	-	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	-		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2806	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1032
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.44
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	-	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	-	Density (D), pc/mi/ln	15.9
Total Ramp Density Adjustment	-	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2858	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1051
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.45
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3111	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1144
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2382	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	876
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.37
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	13.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - AM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	3123	786
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3464	872
Capacity (c), pc/h	7050	2000
Volume-to-Capacity Ratio (v/c)	0.49	0.44

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.506
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	951
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	53.4
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	0.633	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	2513	Ramp Junction Speed (S), mi/h	57.4
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	20.1
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	23.7

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - PM Peak
Project Description	US 101 NB Los Osos Valley Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	235
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (v_i)	2400	700
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2662	776
Capacity (c), pc/h	7050	2000
Volume-to-Capacity Ratio (v/c)	0.38	0.39

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.498
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	645
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.5
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.658	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2017	Ramp Junction Speed (S), mi/h	56.9
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	15.6
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	19.5

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - AM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3123	186
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3390	202
Capacity (c), pc/h	7050	2000
Volume-to-Capacity Ratio (v/c)	0.51	0.10

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.313
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	1373
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	0.595	Outer Lanes Freeway Speed (SO), mi/h	61.9
Flow in Lanes 1 and 2 (v12), pc/h	2017	Ramp Junction Speed (S), mi/h	59.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	2219	Average Density (D), pc/mi/ln	20.2
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	18.8

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - PM Peak
Project Description	US 101 NB - Los Osos Valley Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	625
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2400	467
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2605	507
Capacity (c), pc/h	7050	2000
Volume-to-Capacity Ratio (v/c)	0.44	0.25

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.308
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	1055
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	0.595	Outer Lanes Freeway Speed (SO), mi/h	63.0
Flow in Lanes 1 and 2 (v12), pc/h	1550	Ramp Junction Speed (S), mi/h	59.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	2057	Average Density (D), pc/mi/ln	17.4
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	17.4

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3123	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1149
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.49
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	3	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2400	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	883
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.38
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	13.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - AM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2786	605
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3090	671
Capacity (c), pc/h	6600	2000
Volume-to-Capacity Ratio (v/c)	0.47	0.34

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.488
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	842
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.8
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.652	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2248	Ramp Junction Speed (S), mi/h	57.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	17.9
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	18.0

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - PM Peak
Project Description	US 101 NB Prado Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	620
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2683	202
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2976	224
Capacity (c), pc/h	6600	2000
Volume-to-Capacity Ratio (v/c)	0.45	0.11

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	1
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.448
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	894
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.675	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2082	Ramp Junction Speed (S), mi/h	58.8
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	16.9
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	16.6

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - AM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2786	436
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3024	473
Capacity (c), pc/h	7050	2000
Volume-to-Capacity Ratio (v/c)	0.50	0.24

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.326
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	1240
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	0.590	Outer Lanes Freeway Speed (SO), mi/h	62.3
Flow in Lanes 1 and 2 (v12), pc/h	1784	Ramp Junction Speed (S), mi/h	59.1
Flow Entering Ramp-Infl. Area (vR12), pc/h	2257	Average Density (D), pc/mi/ln	19.7
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	20.1

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/18
Agency		Analysis Year	2018
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - PM Peak
Project Description	US 101 NB - Prado Road On Ramp, Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	3	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	455
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2683	793
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2913	861
Capacity (c), pc/h	7050	2000
Volume-to-Capacity Ratio (v/c)	0.54	0.43

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	1
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.341
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	1194
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.2
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	0.590	Outer Lanes Freeway Speed (SO), mi/h	62.5
Flow in Lanes 1 and 2 (v12), pc/h	1719	Ramp Junction Speed (S), mi/h	58.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	2580	Average Density (D), pc/mi/ln	21.4
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	22.4

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3423	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	944
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.40
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	14.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 NB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3727	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1028
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.44
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	15.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - AM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	3423	228
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3797	253
Capacity (c), pc/h	8800	2000
Volume-to-Capacity Ratio (v/c)	0.43	0.13

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	2
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.451
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1000
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	1798	Ramp Junction Speed (S), mi/h	62.3
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	15.2
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	17.9

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - PM Peak
Project Description	US 101 NB Madonna Road Off-Ramp - Froom Ranch RIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	4	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	3727	231
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	4134	256
Capacity (c), pc/h	8800	2000
Volume-to-Capacity Ratio (v/c)	0.47	0.13

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	2
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.451
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	1094
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.6
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	0.436	Outer Lanes Freeway Speed (S_O), mi/h	70.9
Flow in Lanes 1 and 2 (v_{12}), pc/h	1947	Ramp Junction Speed (S), mi/h	62.2
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	16.6
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	19.2

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2372	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1309
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Madonna Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3526	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1946
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	32.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - AM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2372	190
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2575	206
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.59	0.10

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.370
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2575	Ramp Junction Speed (S), mi/h	56.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	2781	Average Density (D), pc/mi/ln	24.6
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	25.9

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - PM Peak
Project Description	US 101 SB Maddona Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3526	292
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3828	317
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.88	0.16

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.553
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	52.3
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3828	Ramp Junction Speed (S), mi/h	52.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	4145	Average Density (D), pc/mi/ln	39.6
Level of Service (LOS)	E	Density in Ramp Influence Area (DR), pc/mi/ln	36.5

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2205	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1216
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.52
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Prado Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	3586	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1978
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	60.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	32.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - AM Peak
Project Description	US 101 SB Prado Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2205	640
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2446	710
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.56	0.36

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.492
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	53.7
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2446	Ramp Junction Speed (S), mi/h	53.7
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	22.8
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	20.4

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - PM Peak
Project Description	US 101 SB Prado Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	3586	375
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	3977	416
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.90	0.21

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.465
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.3
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	3977	Ramp Junction Speed (S), mi/h	54.3
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	36.6
Level of Service (LOS)	D	Density in Ramp Influence Area (D_R), pc/mi/ln	33.5

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - AM Peak
Project Description	US 101 SB Prado Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2205	114
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2394	124
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.54	0.06

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.355
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	56.8
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2394	Ramp Junction Speed (S), mi/h	56.8
Flow Entering Ramp-Infl. Area (vR12), pc/h	2518	Average Density (D), pc/mi/ln	22.2
Level of Service (LOS)	C	Density in Ramp Influence Area (DR), pc/mi/ln	23.9

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - PM Peak
Project Description	US 101 SB Prado Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	200
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	3586	173
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	3893	188
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.87	0.09

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.538
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	52.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	3893	Ramp Junction Speed (S), mi/h	52.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	4081	Average Density (D), pc/mi/ln	38.8
Level of Service (LOS)	E	Density in Ramp Influence Area (DR), pc/mi/ln	36.0

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1466	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	809
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.34
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Los Osos Valley Road	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2660	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1468
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.62
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Freeway Diverge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - AM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	1466	706
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	1626	783
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.37	0.39

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.498
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	53.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	71.3
Flow in Lanes 1 and 2 (v12), pc/h	1626	Ramp Junction Speed (S), mi/h	53.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	15.2
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	13.3

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HCS7 Freeway Diverge Report

Project Information

Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - PM Peak
Project Description	US 101 SB Los Osos Valley Road Off-Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Deceleration Length (LA),ft	1500	545
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Highway/CD Roadway	Right

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	2660	398
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	0.980
Flow Rate (v_i),pc/h	2950	441
Capacity (c), pc/h	4400	2000
Volume-to-Capacity Ratio (v/c)	0.67	0.22

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.468
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	54.2
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	71.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	2950	Ramp Junction Speed (S), mi/h	54.2
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	27.2
Level of Service (LOS)	C	Density in Ramp Influence Area (D_R), pc/mi/ln	24.7

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - AM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	1466	531
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	1591	576
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.46	0.29

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.326
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	57.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	1591	Ramp Junction Speed (S), mi/h	57.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	2167	Average Density (D), pc/mi/ln	18.8
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	19.6

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HCS7 Freeway Merge Report

Project Information			
Analyst	TJKM	Date	11/10/2018
Agency		Analysis Year	2019
Jurisdiction	City of San Luis Obispo	Time Period Analyzed	Cumulative (2035) Plus Project Conditions - PM Peak
Project Description	US 101 SB Los Osos Valley Road On Ramp - Froom Ranch EIR	Unit	United States Customary

Geometric Data		
	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	65.0	35.0
Segment Length (L) / Acceleration Length (LA),ft	1500	410
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Right

Adjustment Factors		
Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity		
Demand Volume (Vi)	2660	743
Peak Hour Factor (PHF)	0.94	0.94
Total Trucks, %	2.00	2.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.980	0.980
Flow Rate (vi),pc/h	2888	807
Capacity (c), pc/h	4700	2000
Volume-to-Capacity Ratio (v/c)	0.79	0.40

Speed and Density			
Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (MS)	0.449
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	On-Ramp Influence Area Speed (SR), mi/h	54.7
Prop. Freeway Vehicles in Lane 1 and 2 (PFM)	1.000	Outer Lanes Freeway Speed (SO), mi/h	65.0
Flow in Lanes 1 and 2 (v12), pc/h	2888	Ramp Junction Speed (S), mi/h	54.7
Flow Entering Ramp-Infl. Area (vR12), pc/h	3695	Average Density (D), pc/mi/ln	33.8
Level of Service (LOS)	D	Density in Ramp Influence Area (DR), pc/mi/ln	31.4

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	San Luis Obisbo	Time Period Analyzed	AM Peak
Project Description	Froom Ranch TIS- US 101 SB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	2619	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	1445
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.61
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	65.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	22.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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HCS7 Basic Freeway Report

Project Information

Analyst	TJKM	Date	9/2/2018
Agency		Analysis Year	Cumulative 2035 plus Project Conditions
Jurisdiction	City of San Luis Obisbo	Time Period Analyzed	PM Peak
Project Description	Froom Ranch TIS- US 101 SB at Higuera Street	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	65.0	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	65.0
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	4224	Heavy Vehicle Adjustment Factor (f_{HV})	0.985
Peak Hour Factor	0.92	Flow Rate (V_p), pc/h/ln	2330
Total Trucks, %	1.50	Capacity (c), pc/h/ln	2350
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2350
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.99
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	52.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	44.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	65.0		

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Appendix E – Freeway Weaving Section Operation Sheets (Leisch Method)

On ramp: Madonna Rd

Off ramp: LOVR

Ex. Conditions: AM

Direction: SB

1968

W_1 = 587

W_2 = 179

LOS weave: A

Comp. LOS = D

V = 2,734 pcph

L = 5490 ft

W_1 = 587 pcph

W_2 = 179 pcph

V_w = 766 pcph

R = 0.23

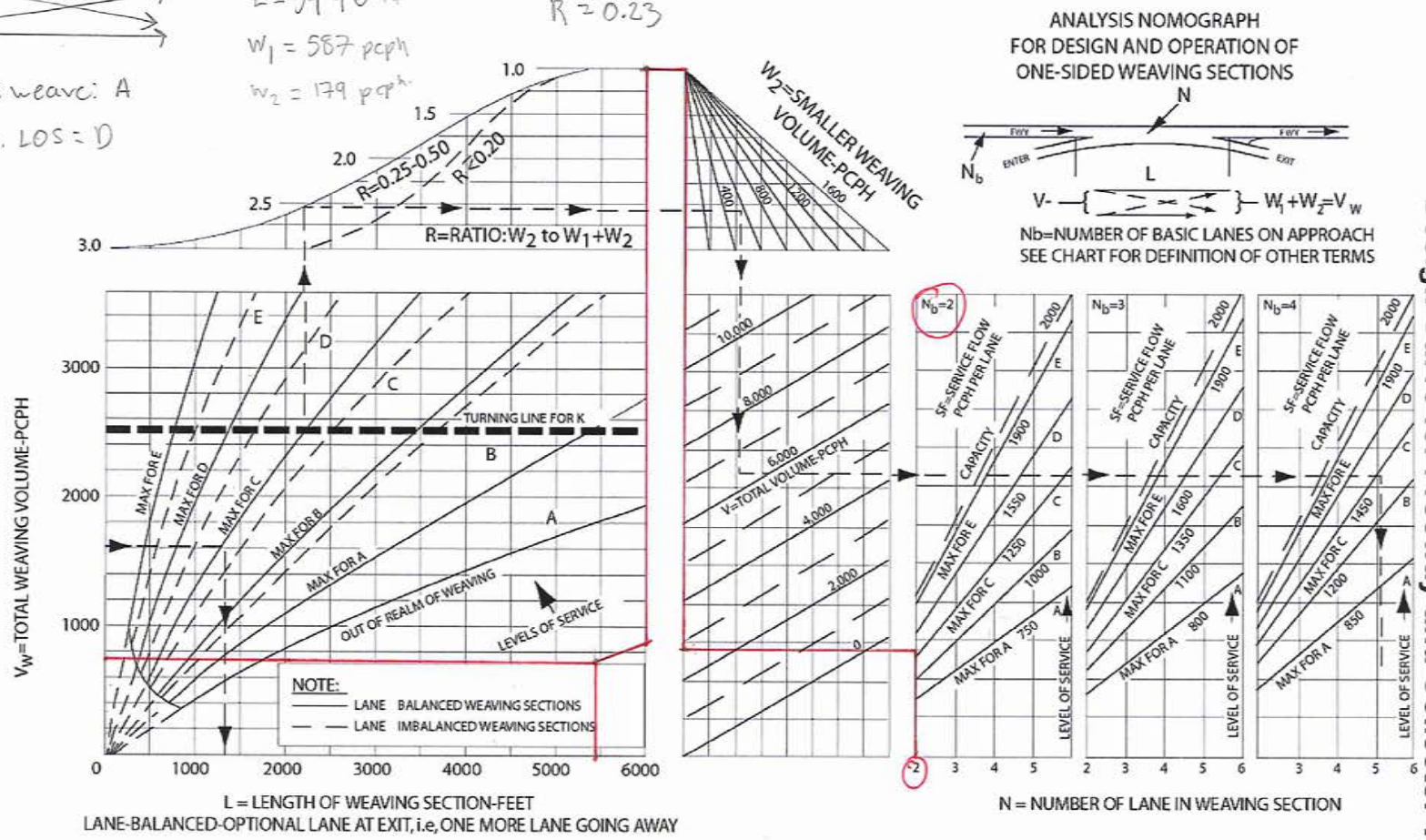


Figure 504.7A
Design Curve for Freeway and Collector Weaving

NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K:" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

Ex. Conditions: PM
Direction: SB

On ramp: Madonna
Off ramp: LOVR

V = 3861 pcph
L = 5490 ft
W1 = 557 pcph
W2 = 348 pcph

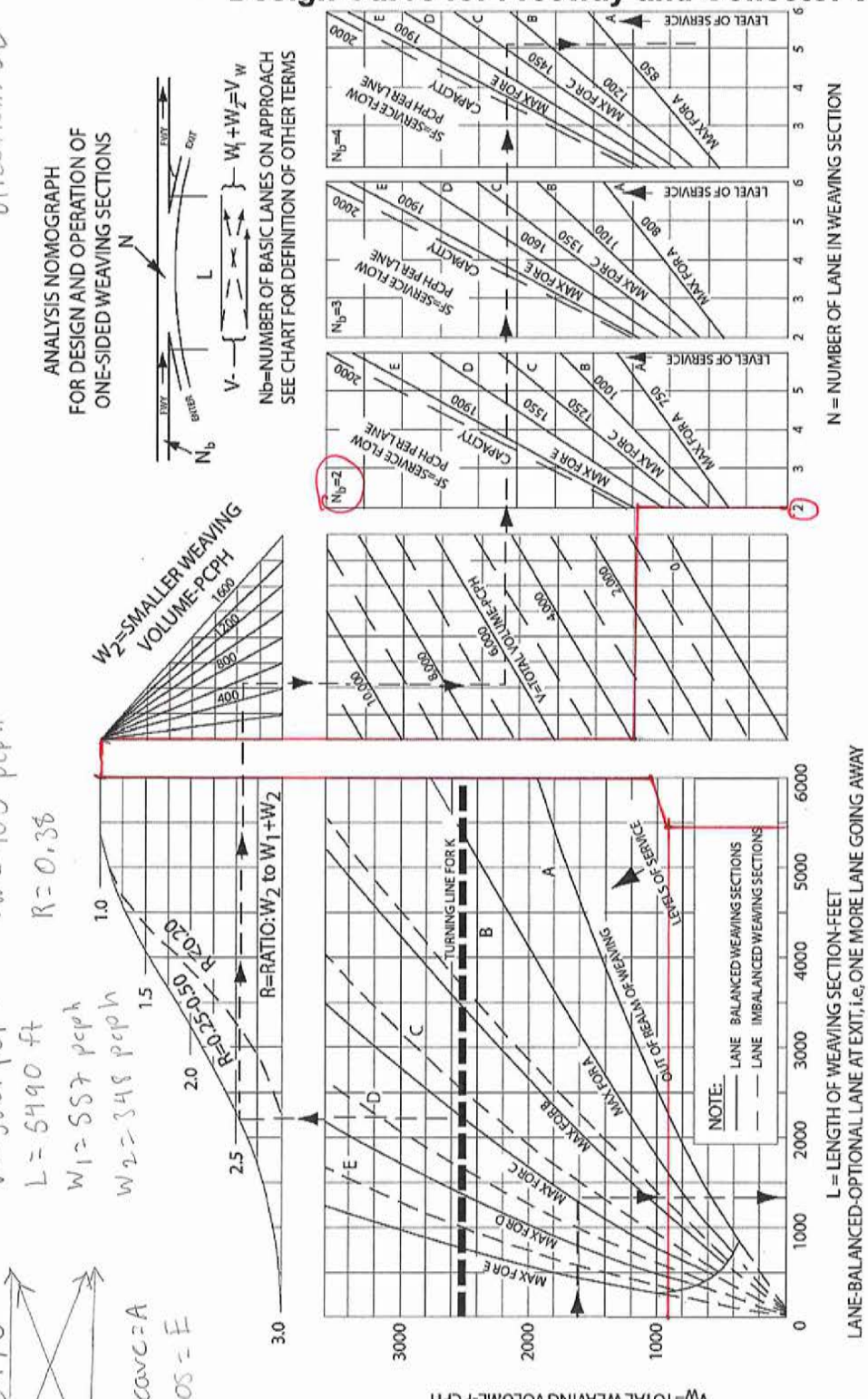
V_w = 905 pcph
R = 0.38

2976

W1 = 557
W2 = 348

LOS weave = A
Comp. LOS = E

Figure 504.7A
Design Curve for Freeway and Collector Weaving



NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, $W_1 + W_2$ (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2- this would be rounded to N = 5 lanes.

On ramp: Prado Rd
off ramp: Madonna Rd

Existing Conditions: AM
Direction: NB

2843
W_1 = 279
W_2 = 240

V = 3362 pcph
L = 2280 ft
W_1 = 279 pcph
W_2 = 240 pcph

V_w = 519 pcph
R = .46

LOS weave = A
comp LOS = E

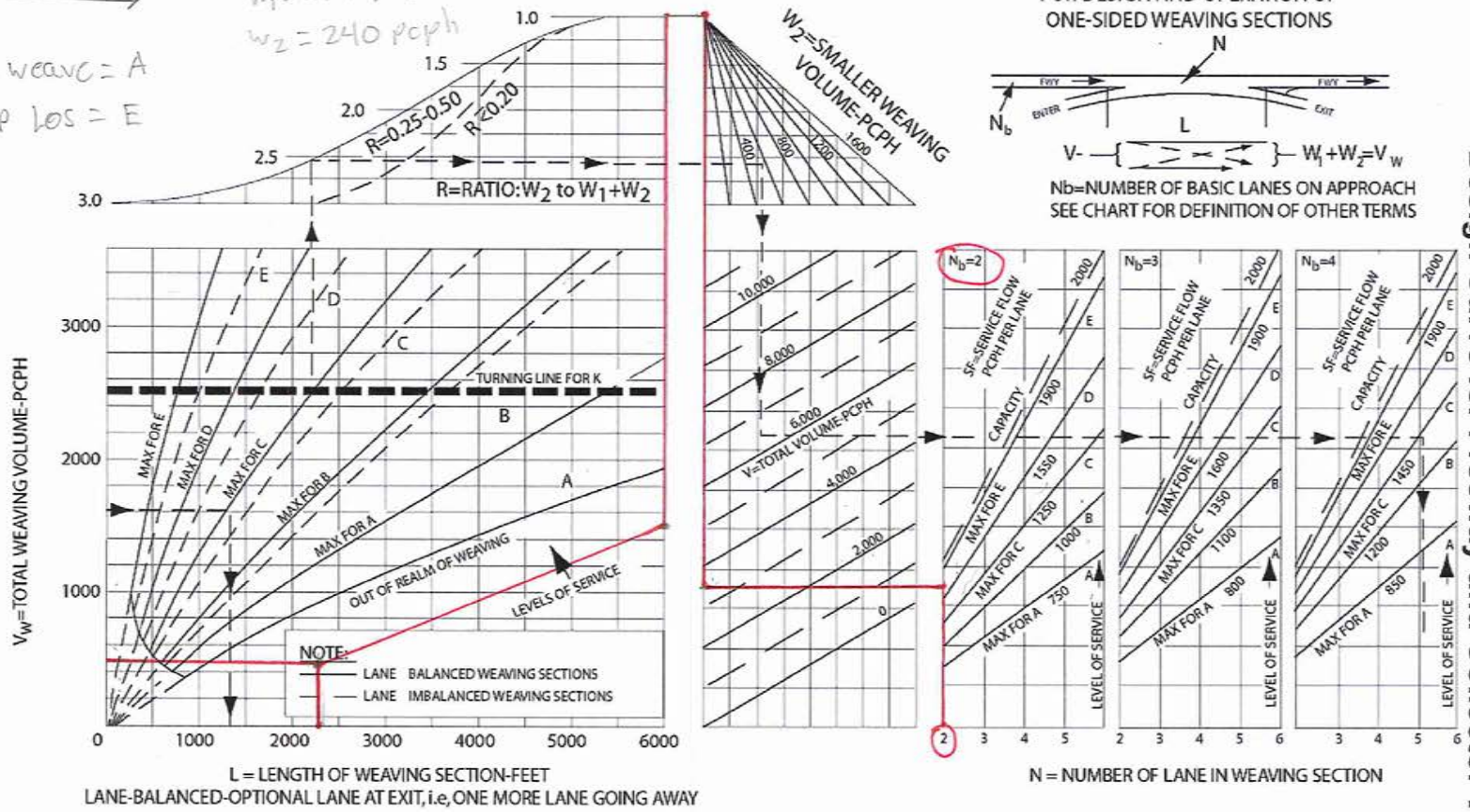


Figure 504.7A
Design Curve for Freeway and Collector Weaving

NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K:" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: Prado Rd
Off ramp: Madonna Rd

Ex. Cond. PM
Direction: WB

3097
W_2 = 349
W_1 = 480
LOS weave = A
Comp LOS = E

V = 3926 pcph
L = 2280 ft
W_1 = 480 pcph
W_2 = 349 pcph

V_w = 829 pcph
R = 0.42

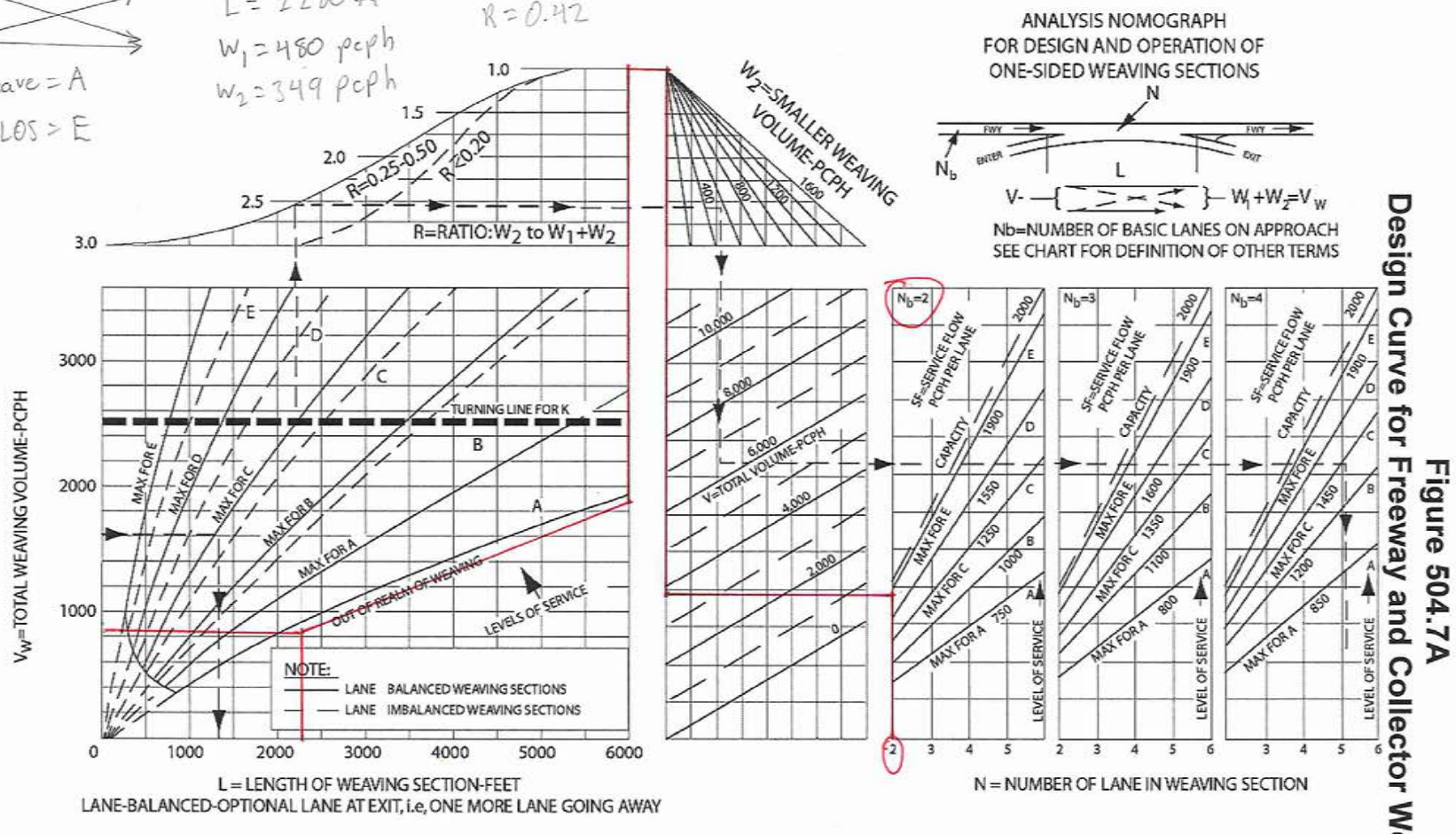


Figure 504.7A
Design Curve for Freeway and Collector Weaving

NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K." from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: LOVR
Off ramp: Prado Rd

Ex. Conditions: PM
Direction: NB

2224

W_2 = 145
W_1 = 392

LOS weave = A
Comp LOS = D

V = 2761 pcph
L = 4380
W_1 = 392 pcph
W_2 = 145 pcph

V_w = 537 pcph
R = .27

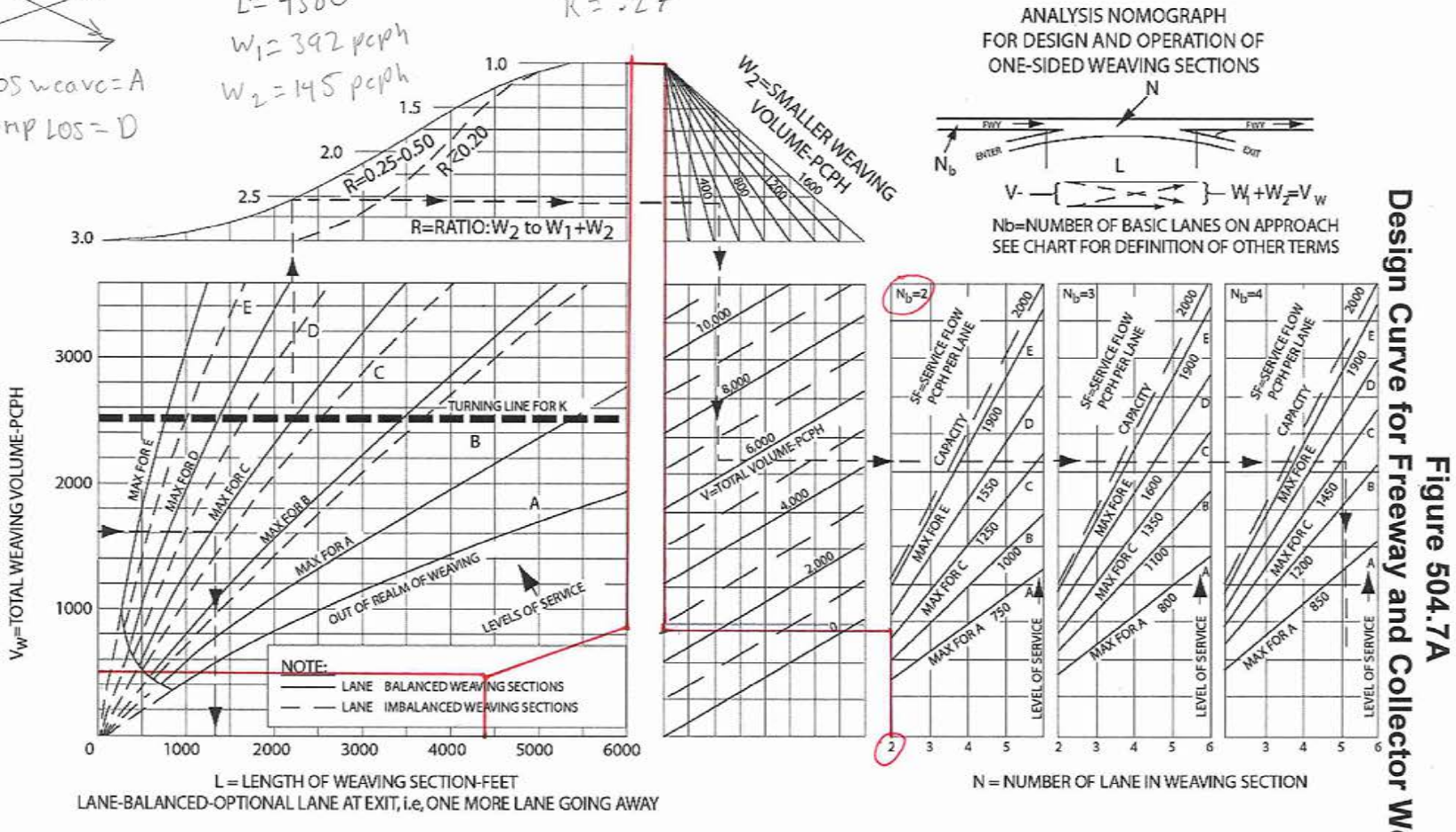


Figure 504.7A
Design Curve for Freeway and Collector Weaving

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Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K." from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: LOVR
off ramp: Prado Rd.

Existing Conditions: AM
Direction: NB

W_1 = 225
W_2 = 215
2601

LOS weave: A
Comp LOS: D

V = 3041 pcph
L = 4,380 ft
W_1 = 225 pcph
W_2 = 215 pcph

V_w = 440 pcph
R = 0.48

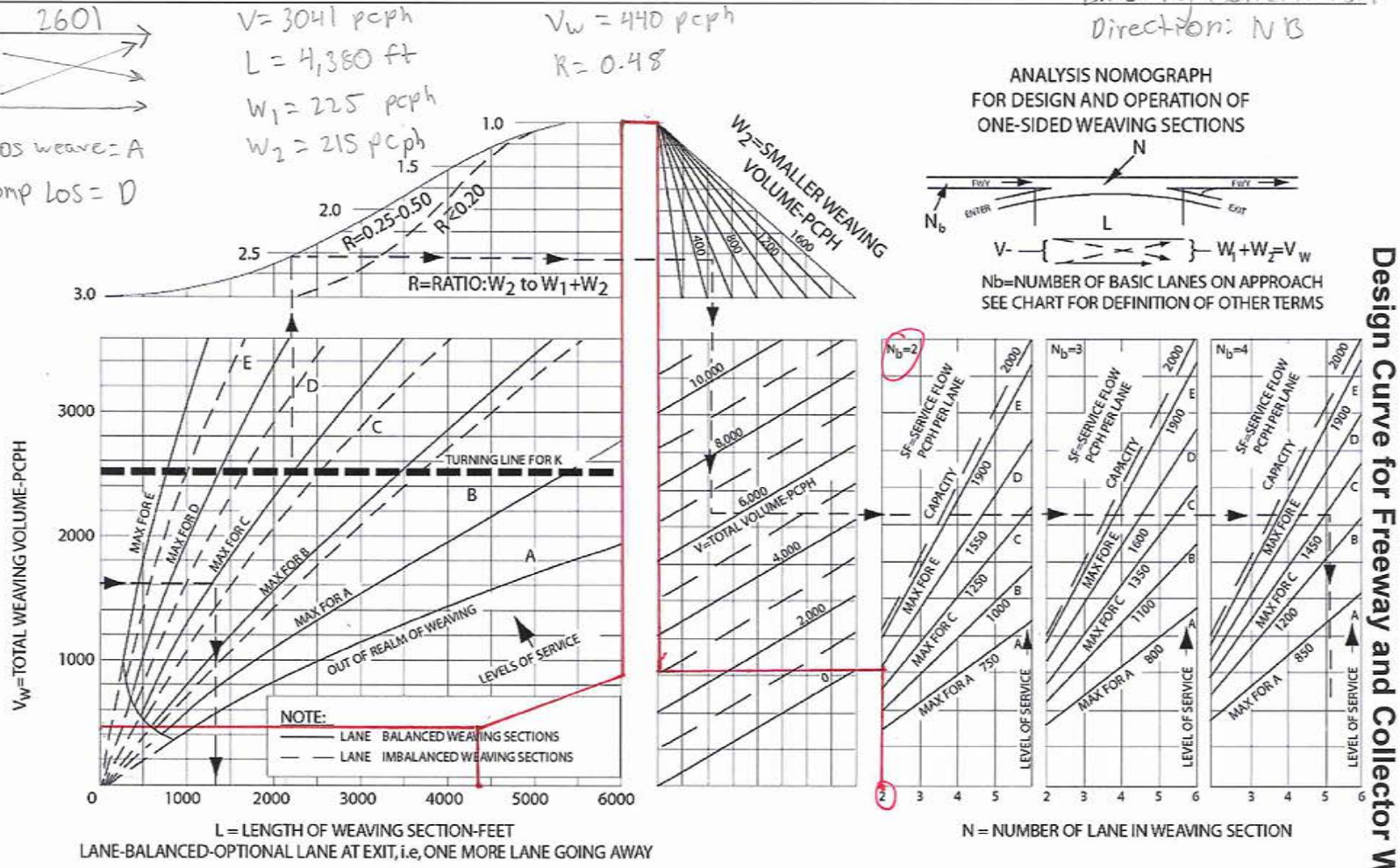

Figure 504.7A
Design Curve for Freeway and Collector Weaving

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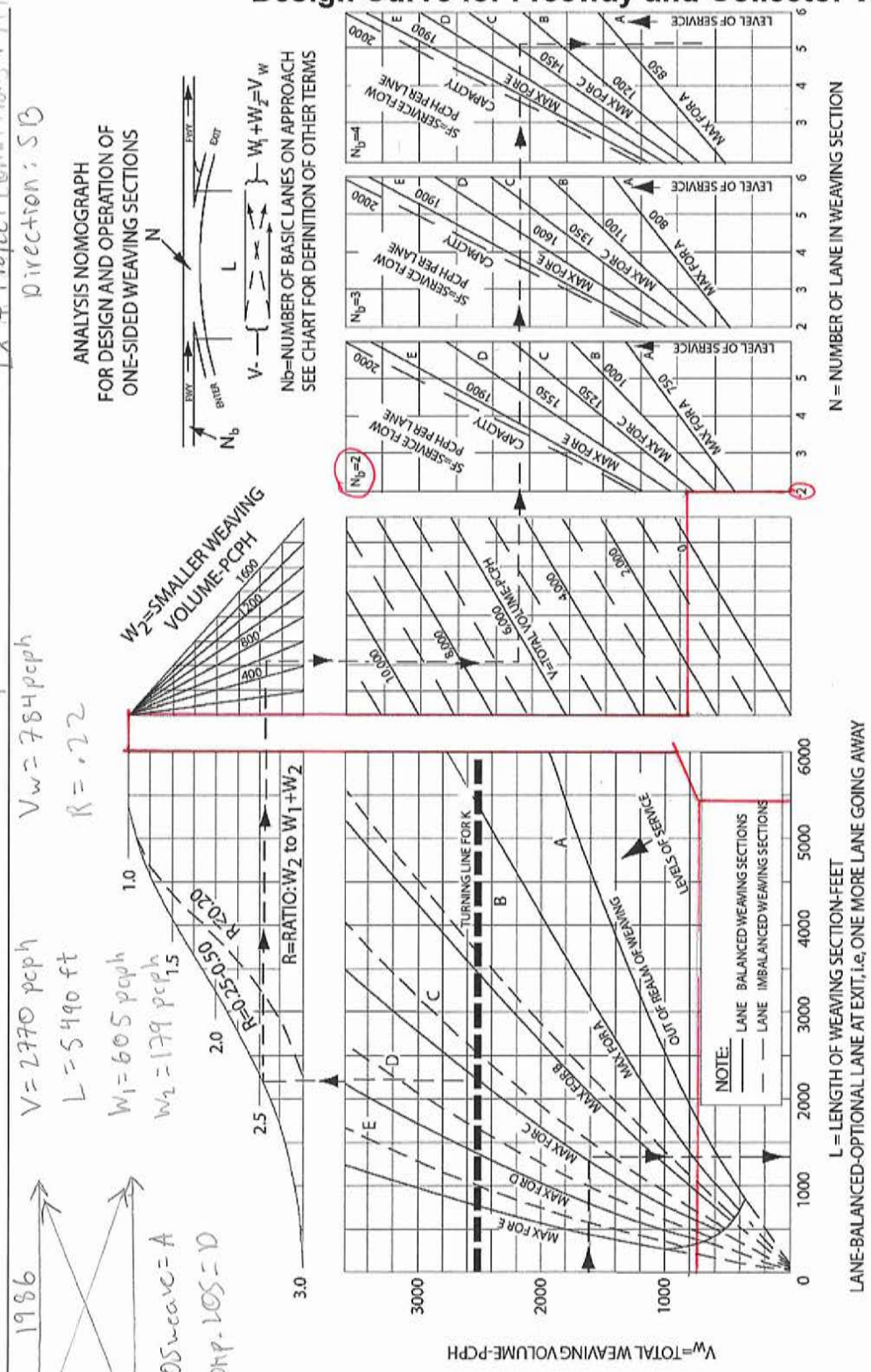
Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K:" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, $W_1 + W_2$ (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, from which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section). from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: Madonna
off ramp: LOVR
Ex + Project conditions: PM
Direction: SB

W_1 = .583
W_2 = .348
3002
LOS weave = A
Comp. LOS = E/F

V = 3933 pcph
L = 5490 ft
W_1 = 583 pcph
W_2 = 348 pcph

V_w = 931 pcph
R = .37

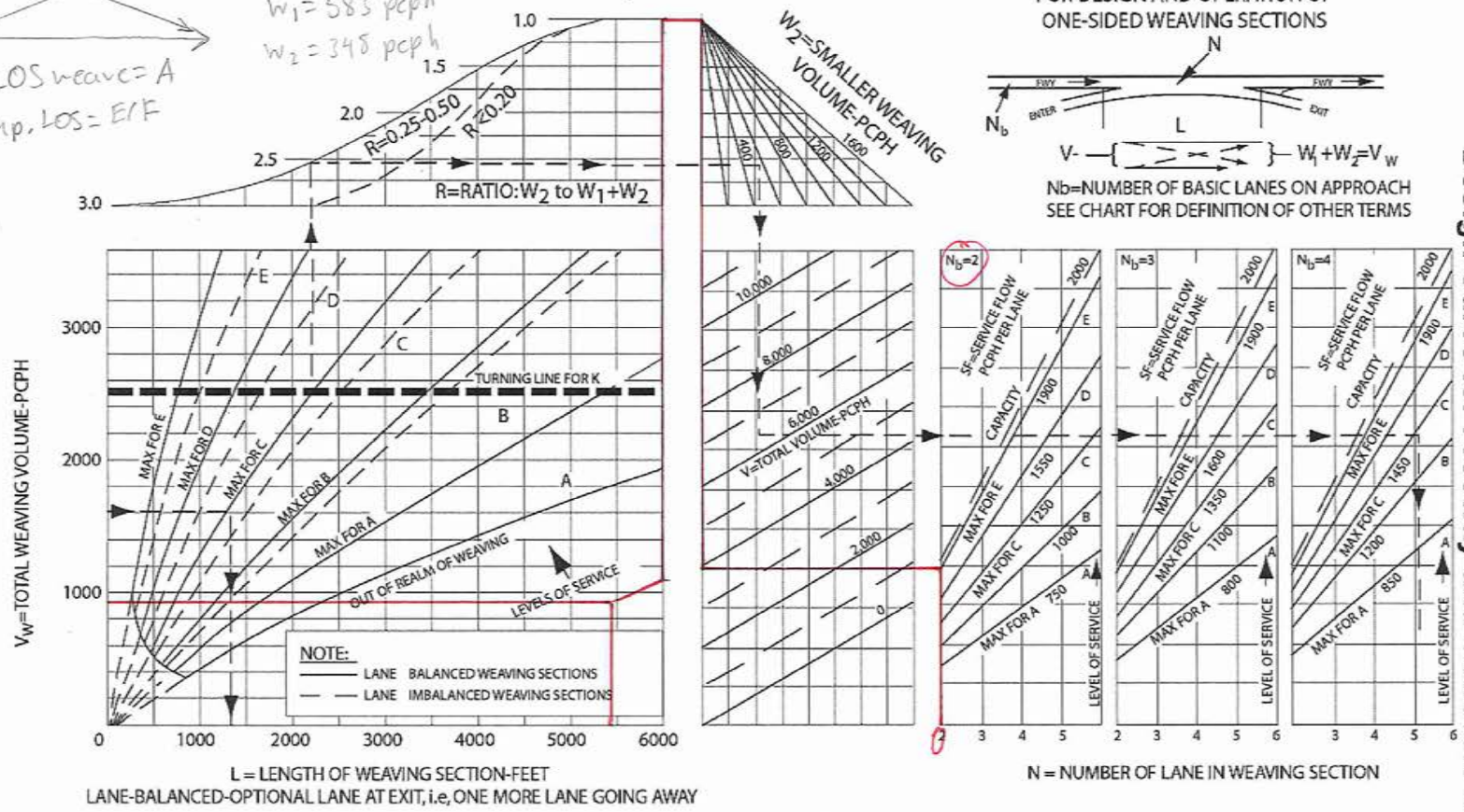

Figure 504.7A
Design Curve for Freeway and Collector Weaving

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Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K:" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: LOVR
off ramp: Prado

Ex. Conditions + Project Conditions: AM
Direction: NB

W_1 = 225
W_2 = 177
2613

V = 3015 pcph
L = 4380 ft
W_1 = 225 pcph
W_2 = 177 pcph

V_w = 402 pcph
R = .44

LOS weave = A
Comp LOS = D

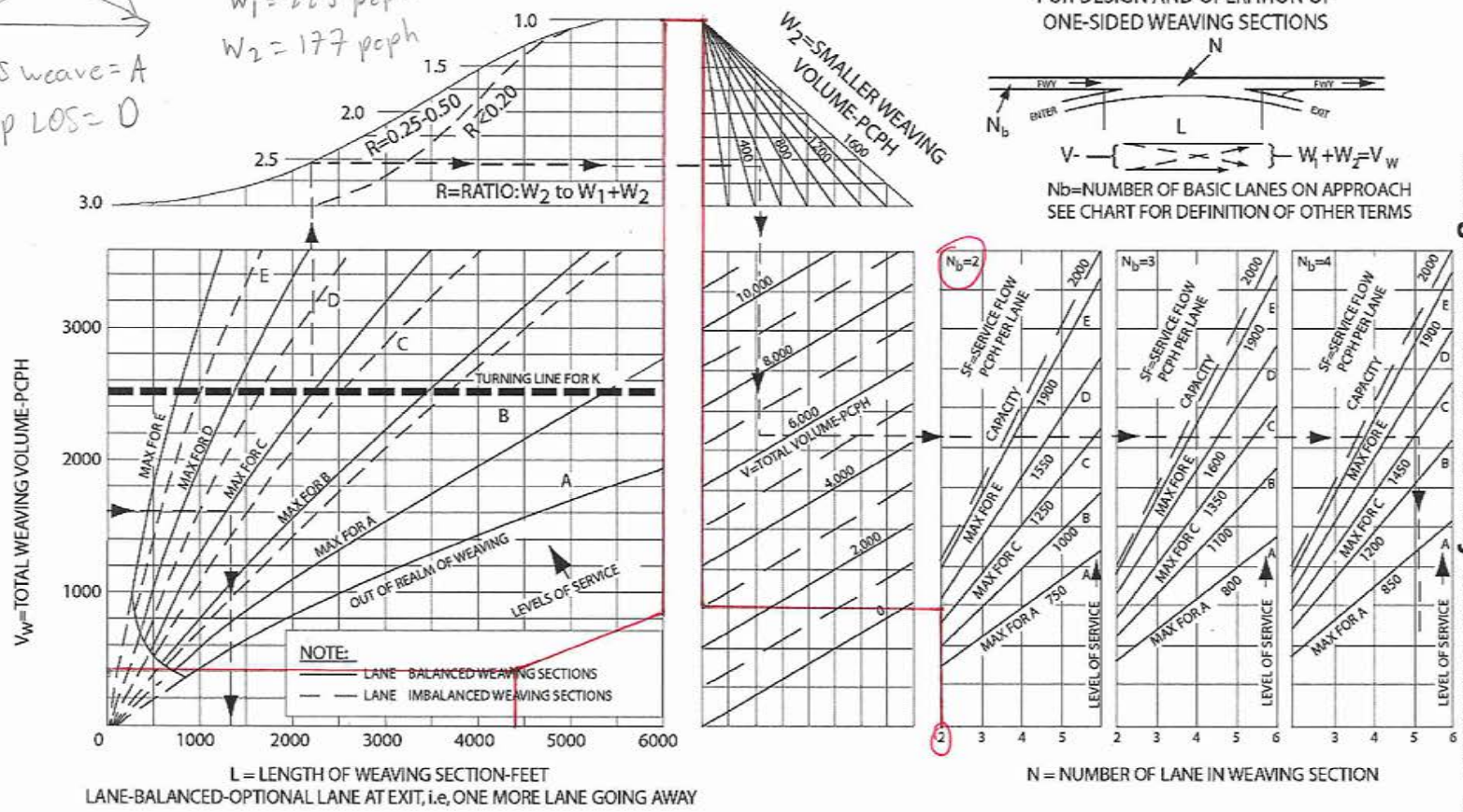

Figure 504.7A
Design Curve for Freeway and Collector Weaving

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On ramp: LOVR
off ramp: Prado

Ex + Project Conditions: PM
Direction: NB

W_2 = 145

W_1 = 415

2247

V = 2807 pcph
L = 4380 ft
W_1 = 415 pcph
W_2 = 145 pcph

V_w = 560 pcph
R = 0.26

LOS weave = A
Comp. LOS = D

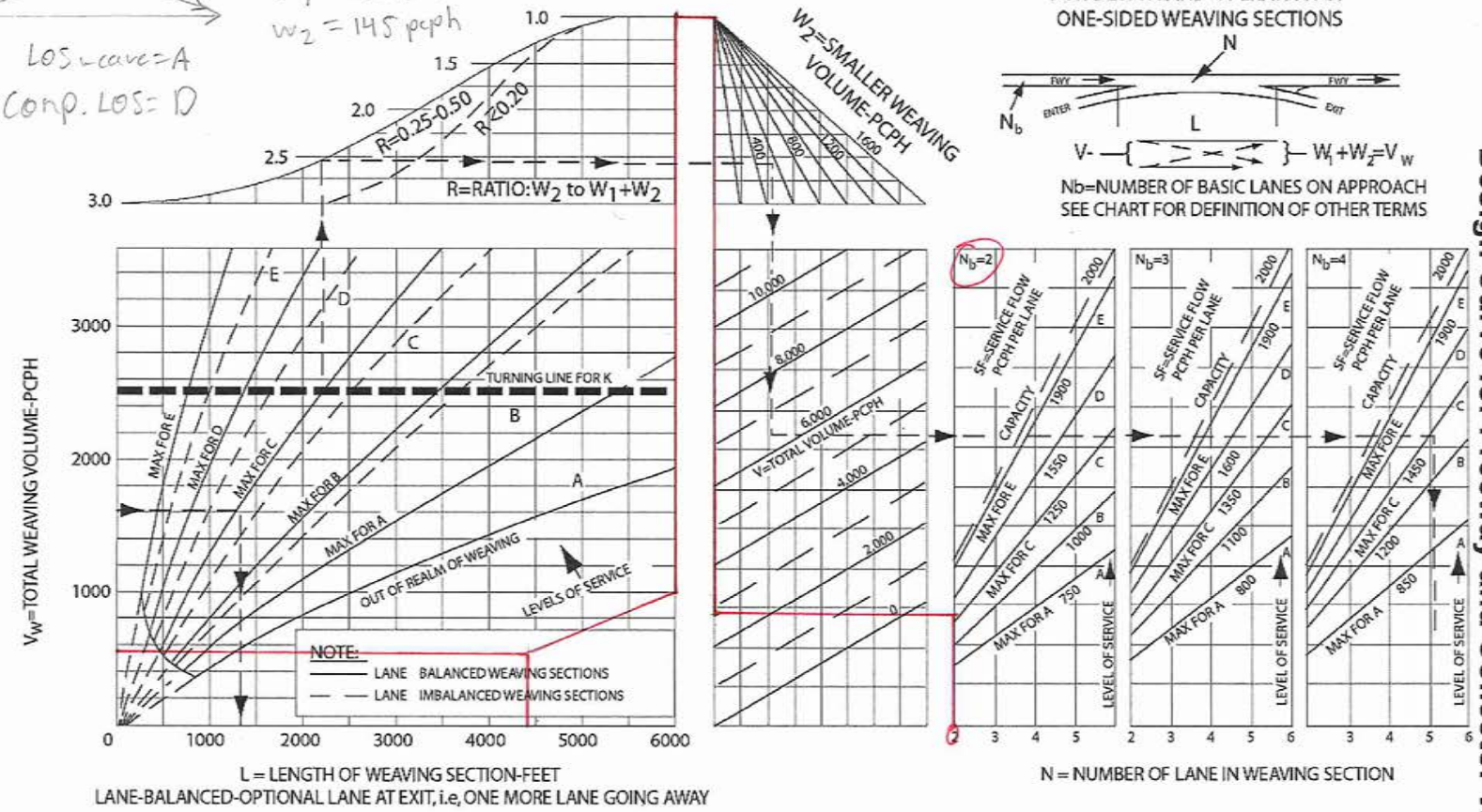

Figure 504.7A
Design Curve for Freeway and Collector Weaving

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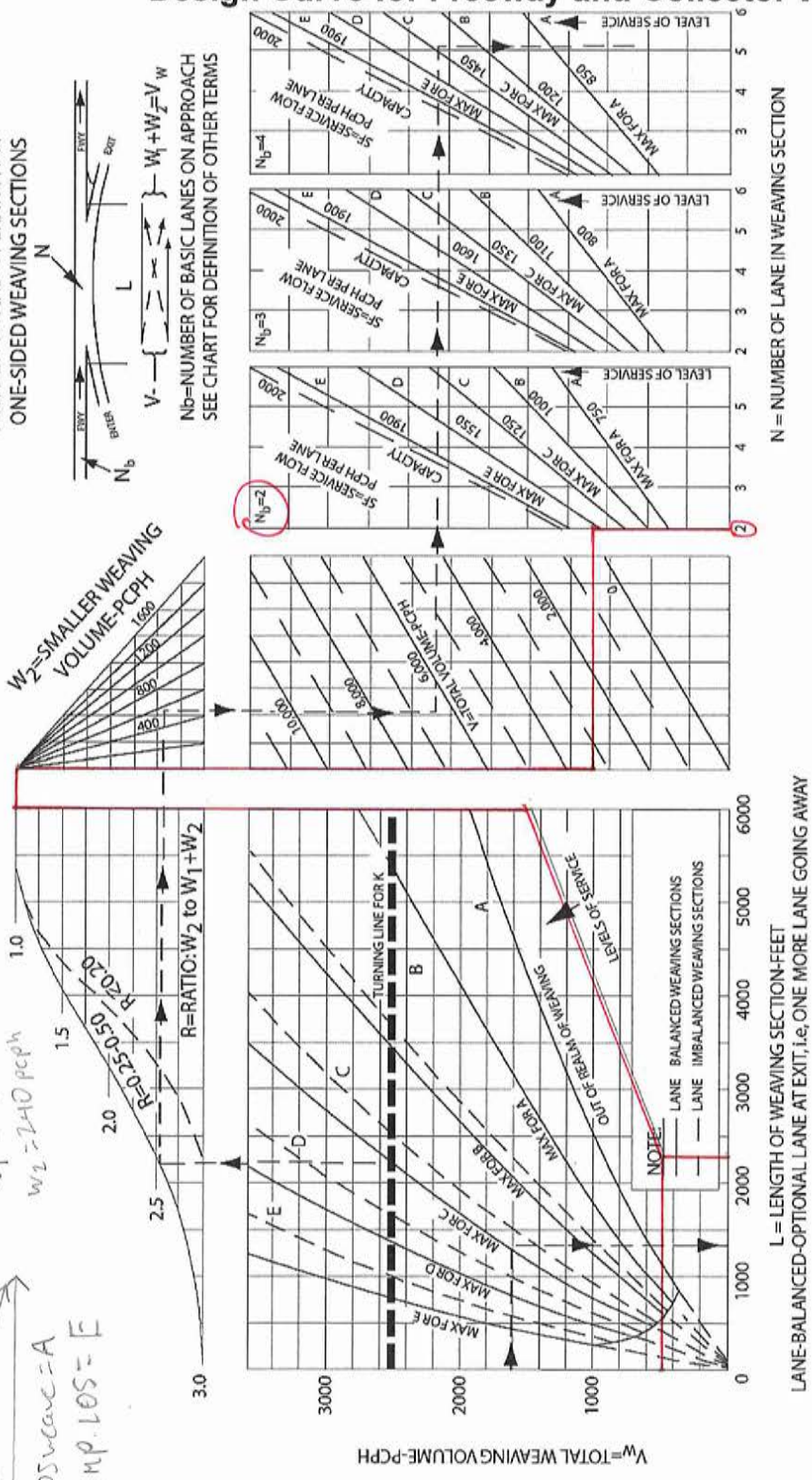
Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K." from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

Ex Conditions + Project Conditions: AM
Direction: NB

On ramp: Prado
Off ramp: Madonna

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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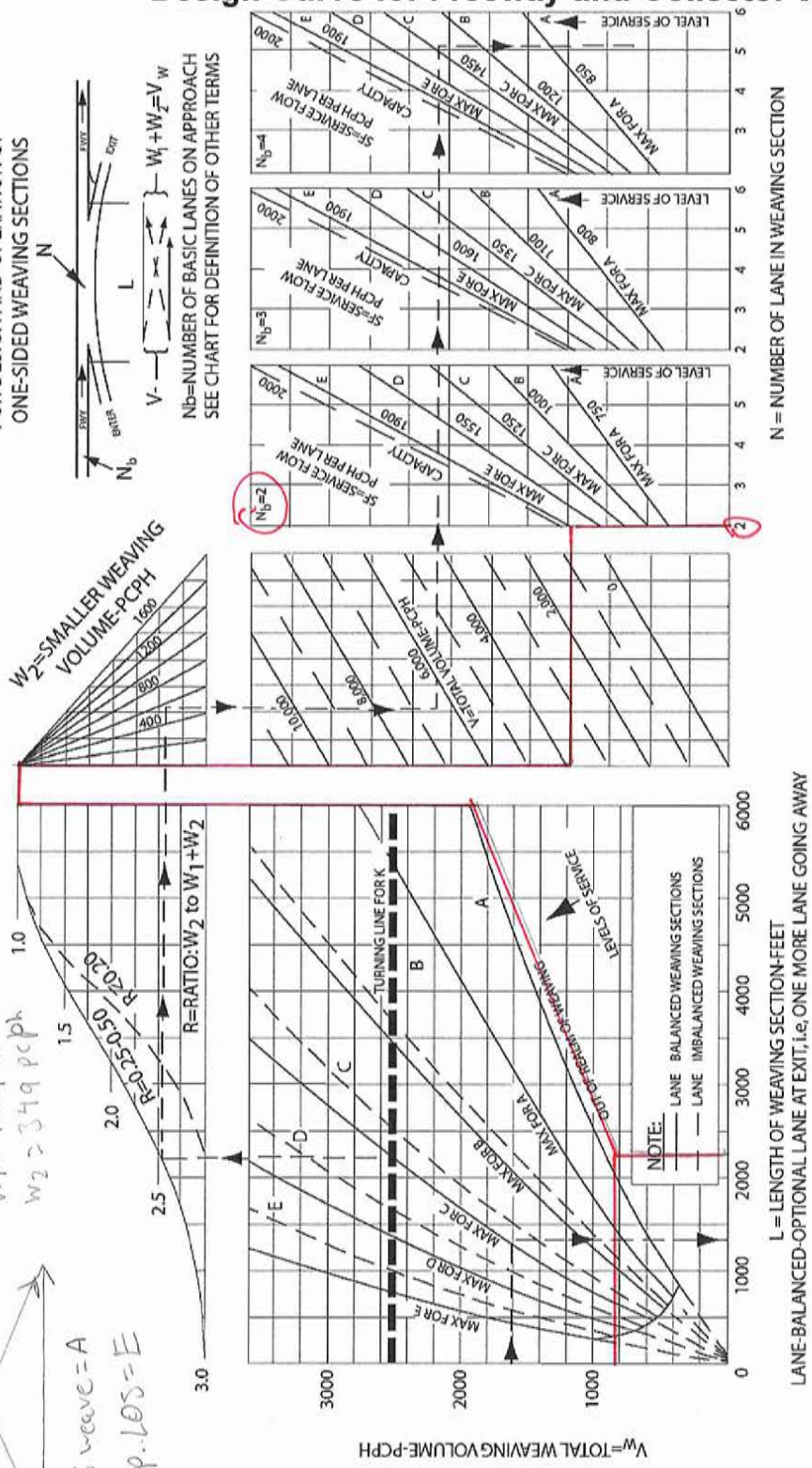
Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, $W_1 + W_2$ (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right. Intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section). from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

Vw = 519 pcph
R = .46
V = 3384
L = 2280 ft
W1 = 279 pcph
W2 = 240 pcph
2865
LOS weave = A
comp. LOS = E
W1 = 279
W2 = 240

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: Prado
Off ramp: Madonna
Ex + Project Cond.: PM
Direction: NB
V = 3949 pcph
L = 2280 ft
W1 = 480 pcph
W2 = 349 pcph
Vw = 829 pcph
R = .42
3120
W2 = 349
W1 = 480
LOS weave = A
Comp. LOS = E

On ramp: LOV B
Offramp: Prado
Near-Term Scenario 1 : AM
Direction: NB

W_1 = 456
2817
W_2 = 181
LOS weave: A
Comp. LOS = E

V = 3454 pcph
L = 4,380 ft
W_1 = 456 pcph
W_2 = 181 pcph.
V_w = 637
R = 0.28

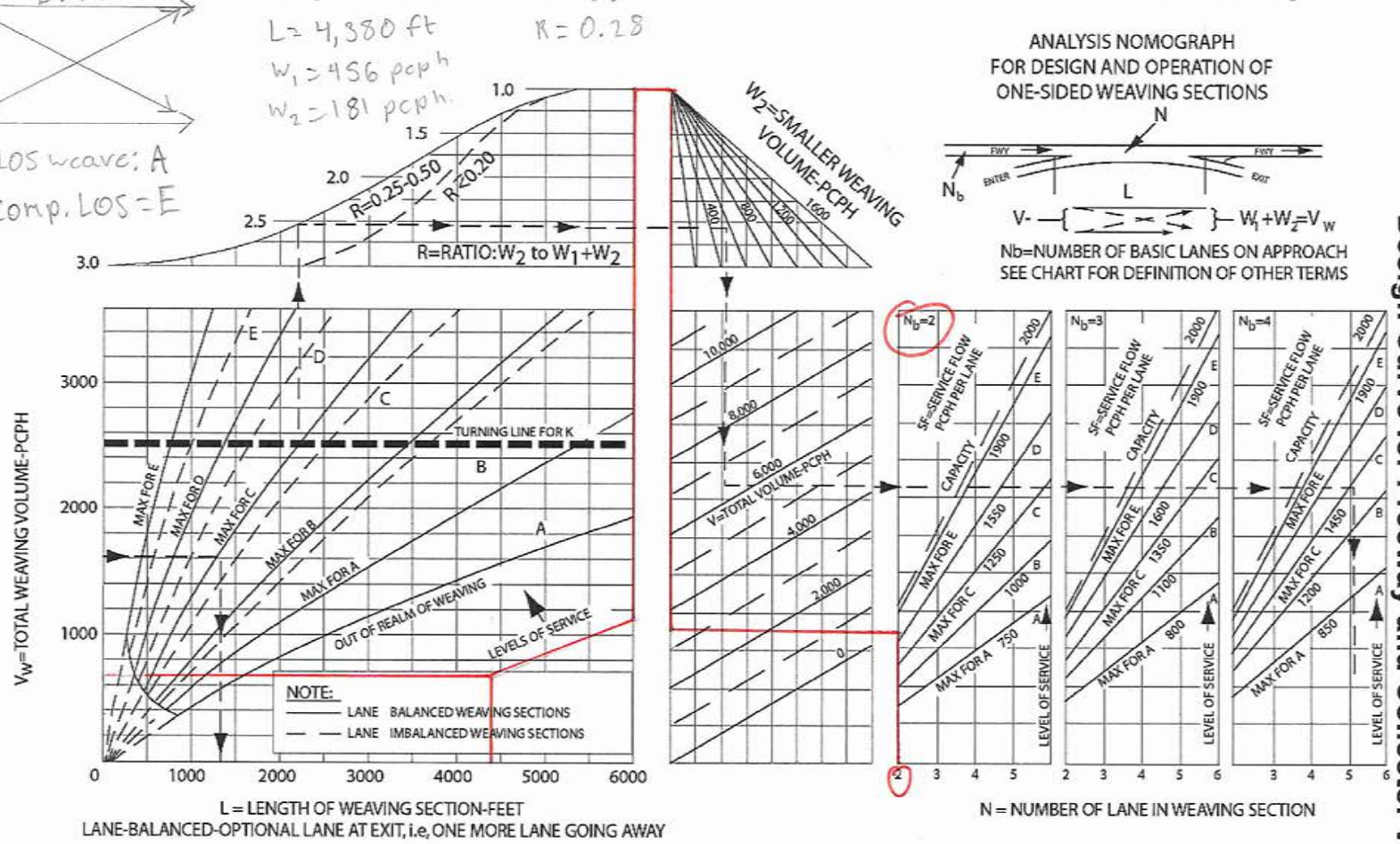

Figure 504.7A
Design Curve for Freeway and Collector Weaving

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Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K:" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: LOVR
off ramp: Prado

Near-Term Scenario 1: PM
Direction: NB

W_2 = 227
W_1 = 493
2408

V = 3128 pcph
L = 4,380 ft
W_1 = 493 pcph
W_2 = 227 pcph

V_w = 720 pcph
R = 0.32

LOS weave: A
Comp. LOS: D/E

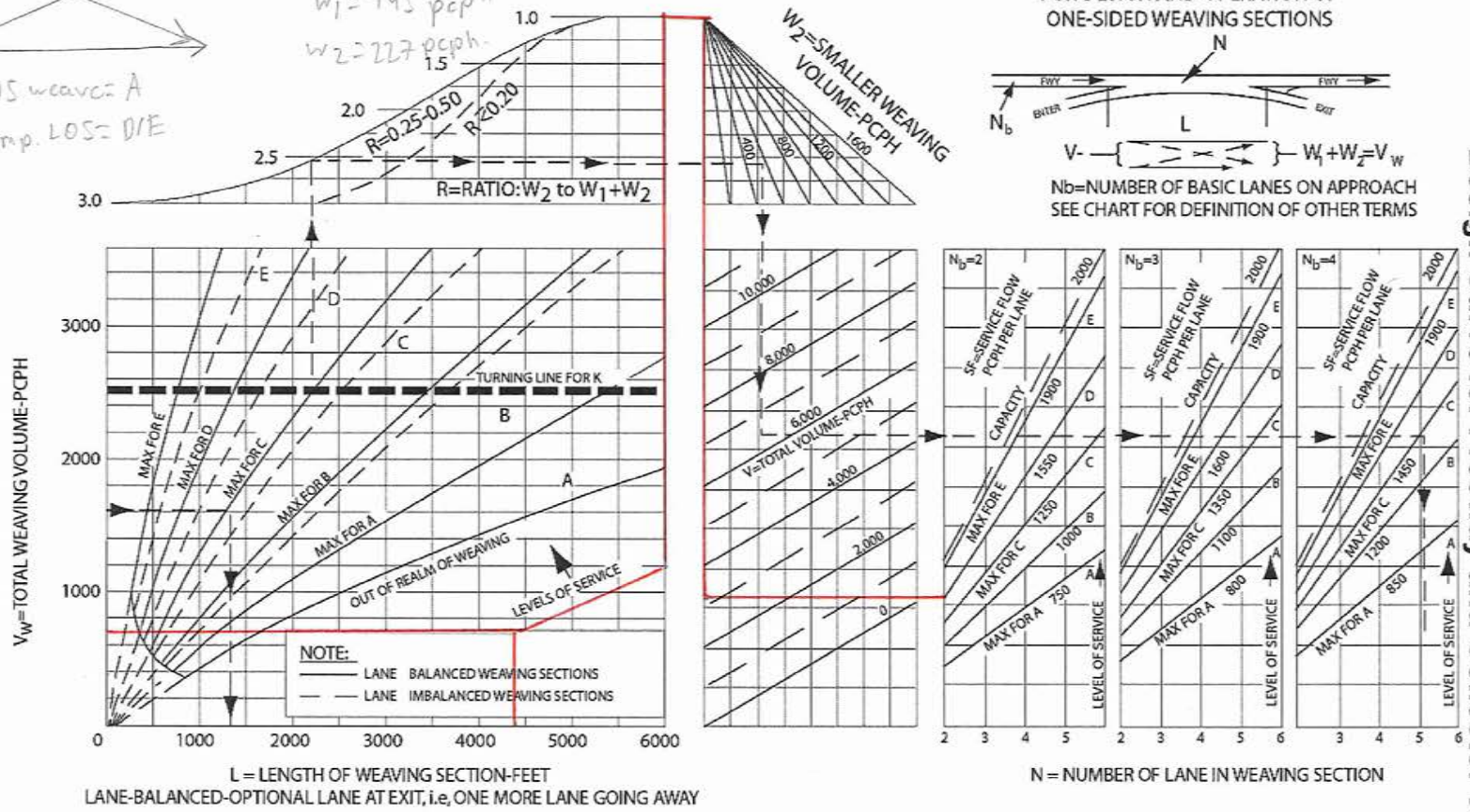

Figure 504.7A
Design Curve for Freeway and Collector Weaving

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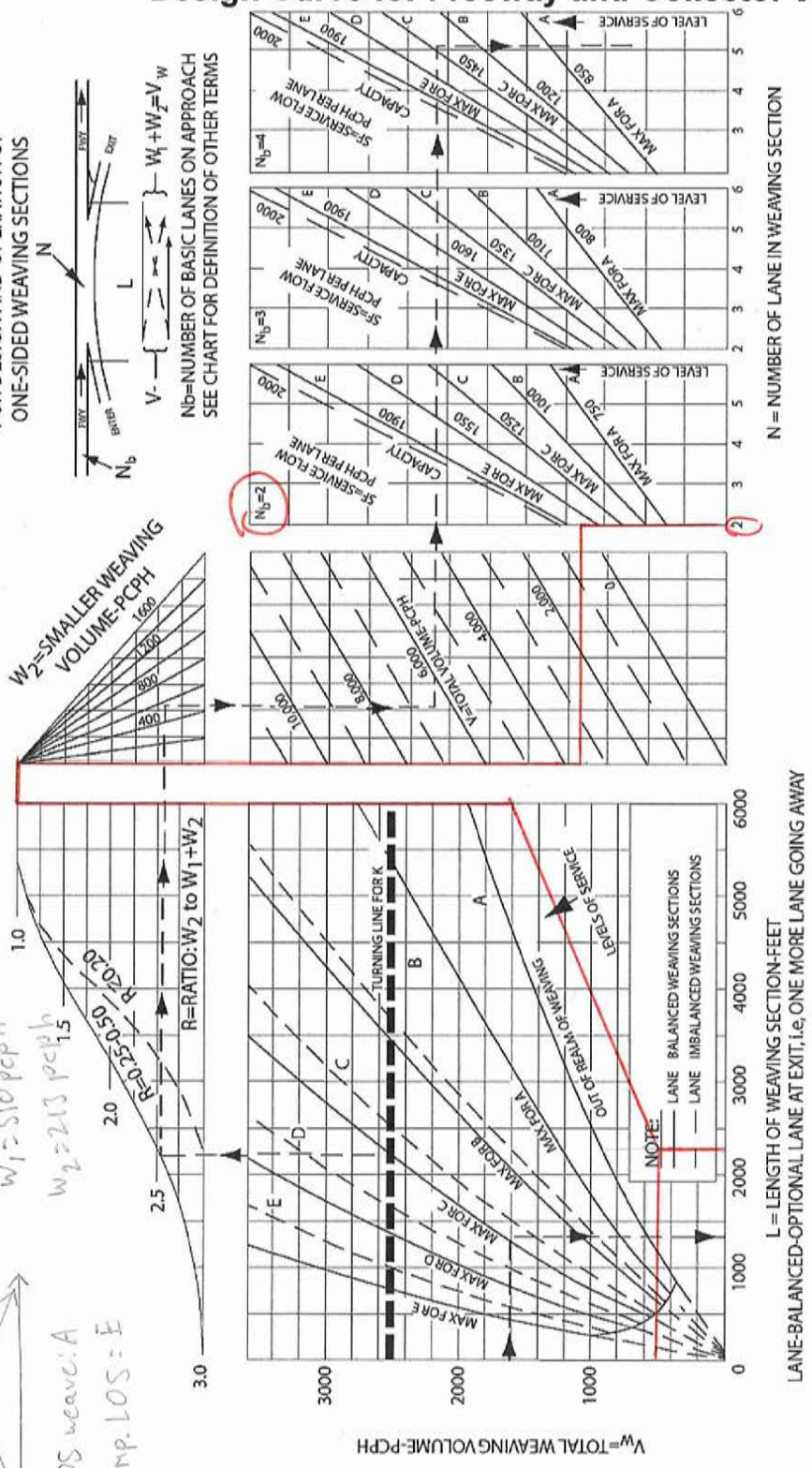
Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K:" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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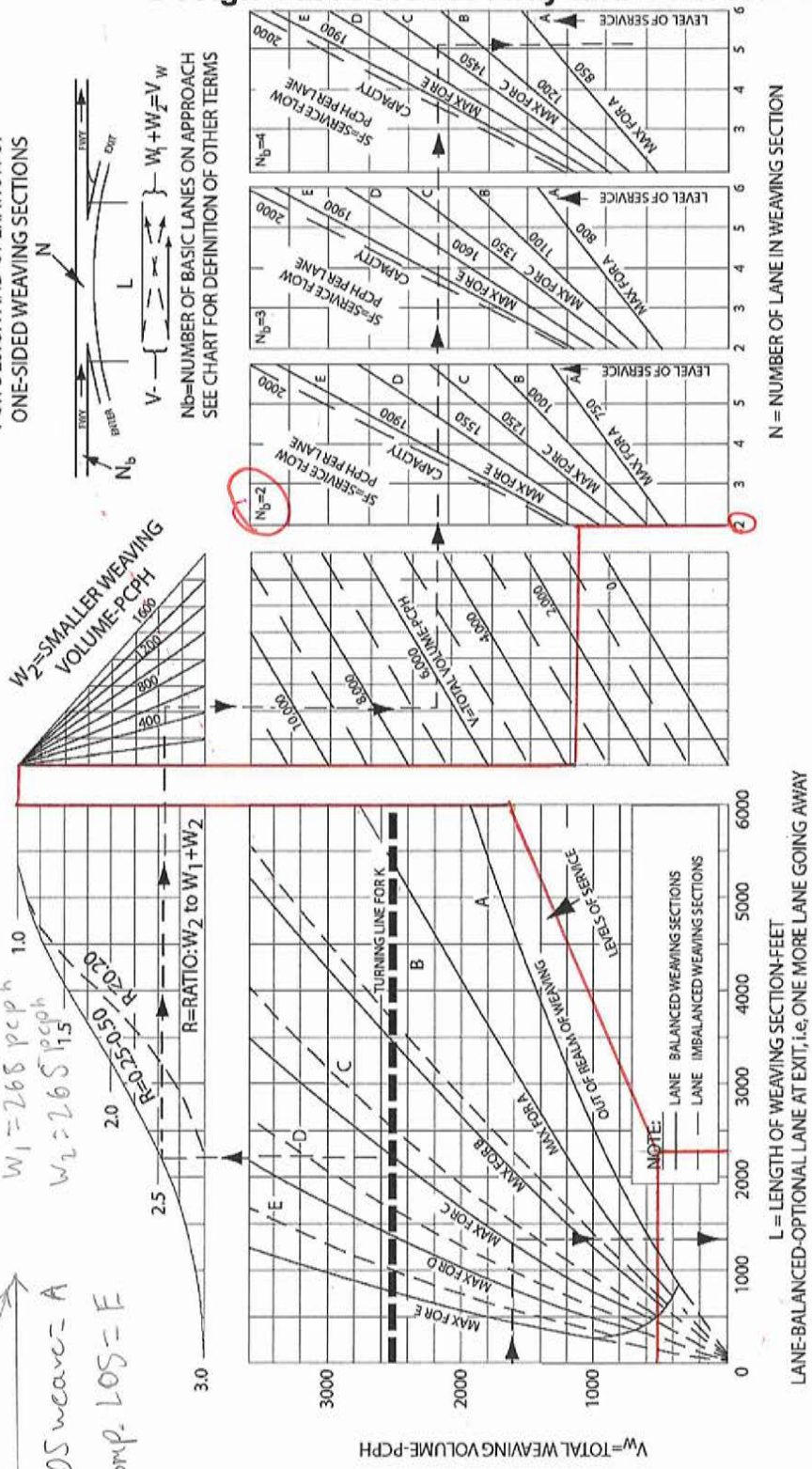
On ramp: Prado
Off ramp: Madonna
Near-Term Scenario 1: AM
Direction. NB

V_w = 523 pcph
R = 0.41
V = 3602 pcph
L = 2280 ft
W_1 = 310 pcph
W_2 = 213 pcph
LOS weave: A
Comp. LOS: E

3079
W_1 = 310
W_2 = 213

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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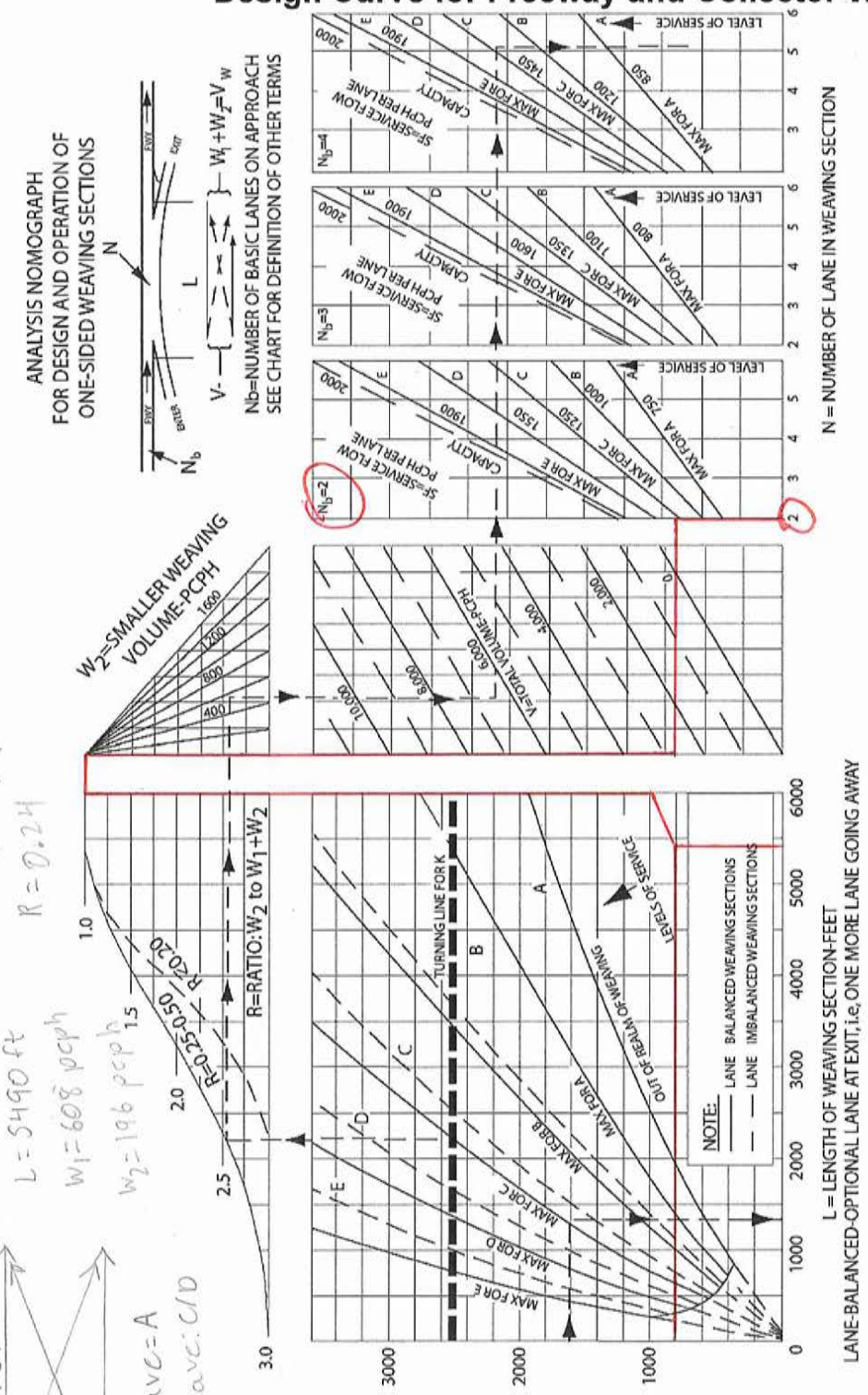
Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_W) followed by projection on the right, intersecting the desired weaving LOS; a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_W with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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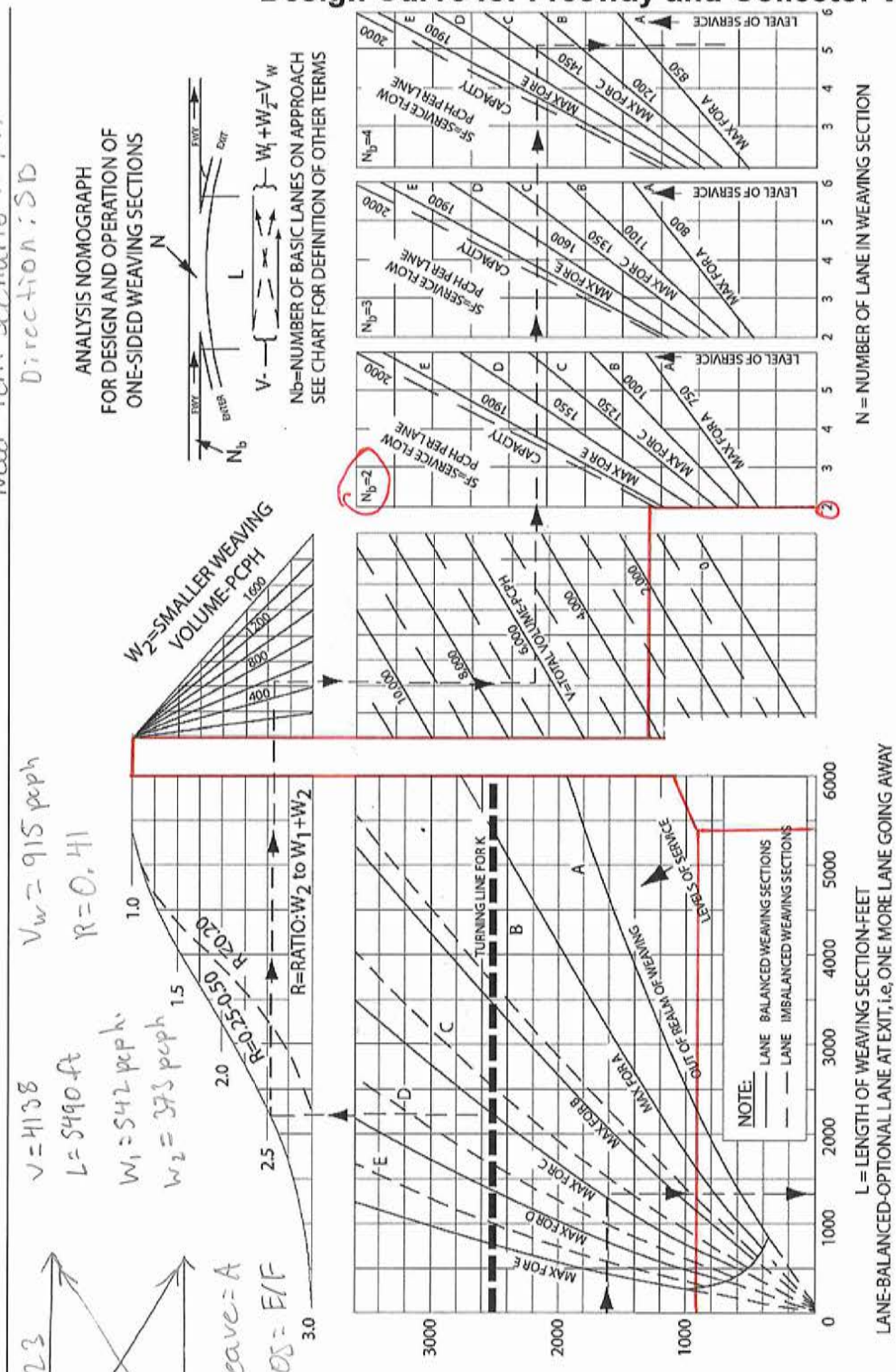
On ramp: Madonna
Off ramp: I-80 WB
Year-Term Scenario 1: AM
Direction: SB
V = 2935 pcph
L = 5490 ft
W1 = 608 pcph
W2 = 196 pcph
Vw = 804 pcph
R = 0.24
2131
W1 = 608
W2 = 196
LOS weave = A
Comp weave: C/D

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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On ramp: Madonna
Off ramp LOVR

Near-Term Scenario 1: PM
Direction: SD

V = 4138
L = 5490 ft
W1 = 542 pph
W2 = 373 pph

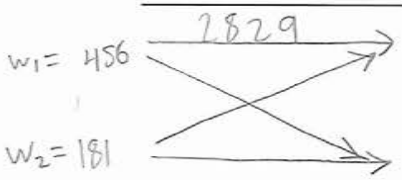
Vw = 915 pph
R = 0.41

3223

W1 = 542
W2 = 373

LOS weave = A
Comp. LOS = E/F

On ramp: LOVR
Off ramp: Prado
Near-Term Scenario 1 + Project Conditions: AM
Direction: NB



V = 3466 pcph
L = 4380 ft
W1 = 456 pcph
W2 = 181 pcph

LOS weave: A
Comp LOS: E

ANALYSIS NOMOGRAPH
FOR DESIGN AND OPERATION OF
ONE-SIDED WEAVING SECTIONS

Nb=NUMBER OF BASIC LANES ON APPROACH
SEE CHART FOR DEFINITION OF OTHER TERMS

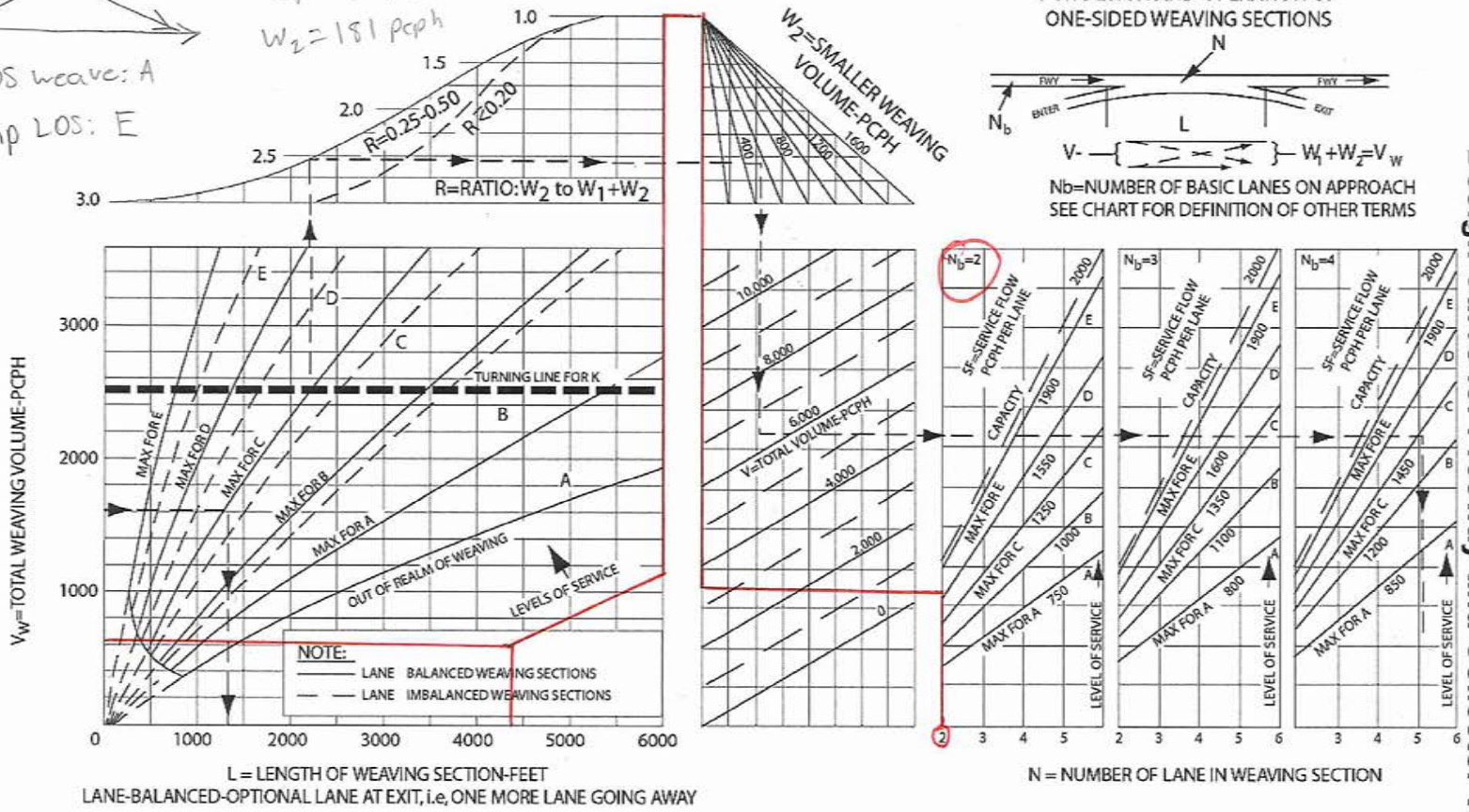


Figure 504.7A
Design Curve for Freeway and Collector Weaving

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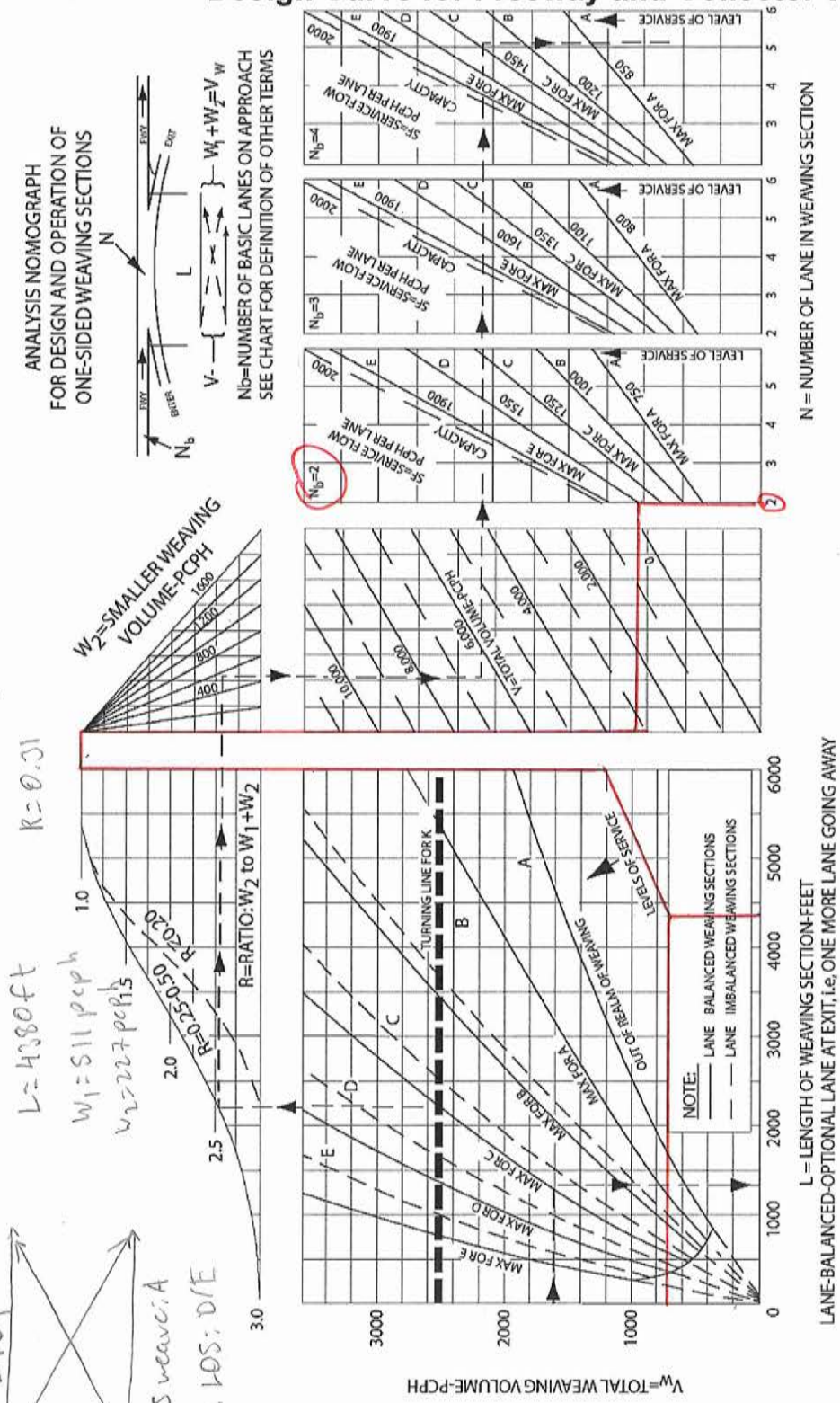
Figure 504.7A
Design Curve for Freeway and Collector Weaving



NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection at the right, intesecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

NT Scenario + Project: PM
Direction: NB

On ramp: LOVR
Off ramp: Prado

V_w = 7386 pcph
R = 0.31

V = 3169 pcph
L = 4980 ft

W_1 = 511 pcph
W_2 = 2227 pcph

2431

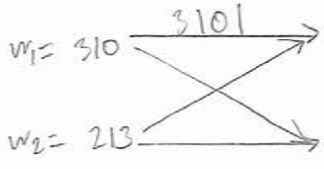
W_2 = 227
W_1 = 511

LOS weave: A
Comp. LOS: D/E

On ramp: Prado

Off ramp: Madonna

Near-term Scenario 1 + Project Conditions; AM
Direction: NB



LOS weave: A
Comp. LOS = E

V = 3,624 pcph
L = 2280 ft
W_1 = 310 pcph
W_2 = 213 pcph

V_w = 523 pcph
R = 0.41

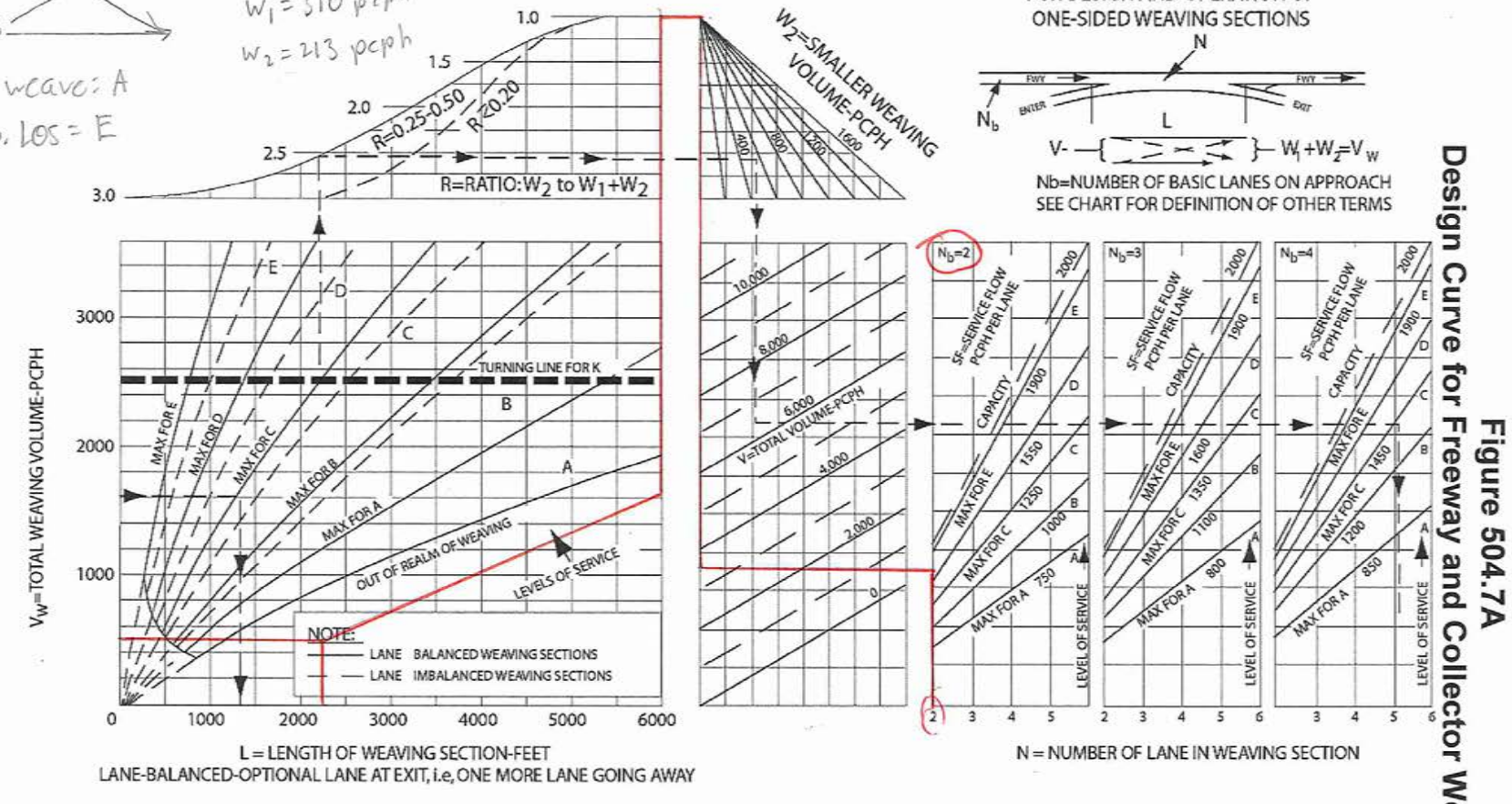


Figure 504.7A
Design Curve for Freeway and Collector Weaving

NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K:" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: Prado
off ramp: Madonna
NT Scenario + Project: PM
Direction: N B

W_1 = 268 → 3377
W_2 = 265 → LOS weave: A
Comp. LOS: E

V = 3910 pcph
L = 2280 ft
W_1 = 268 pcph
W_2 = 265 pcph

V_w = 533 pcph
R = .50

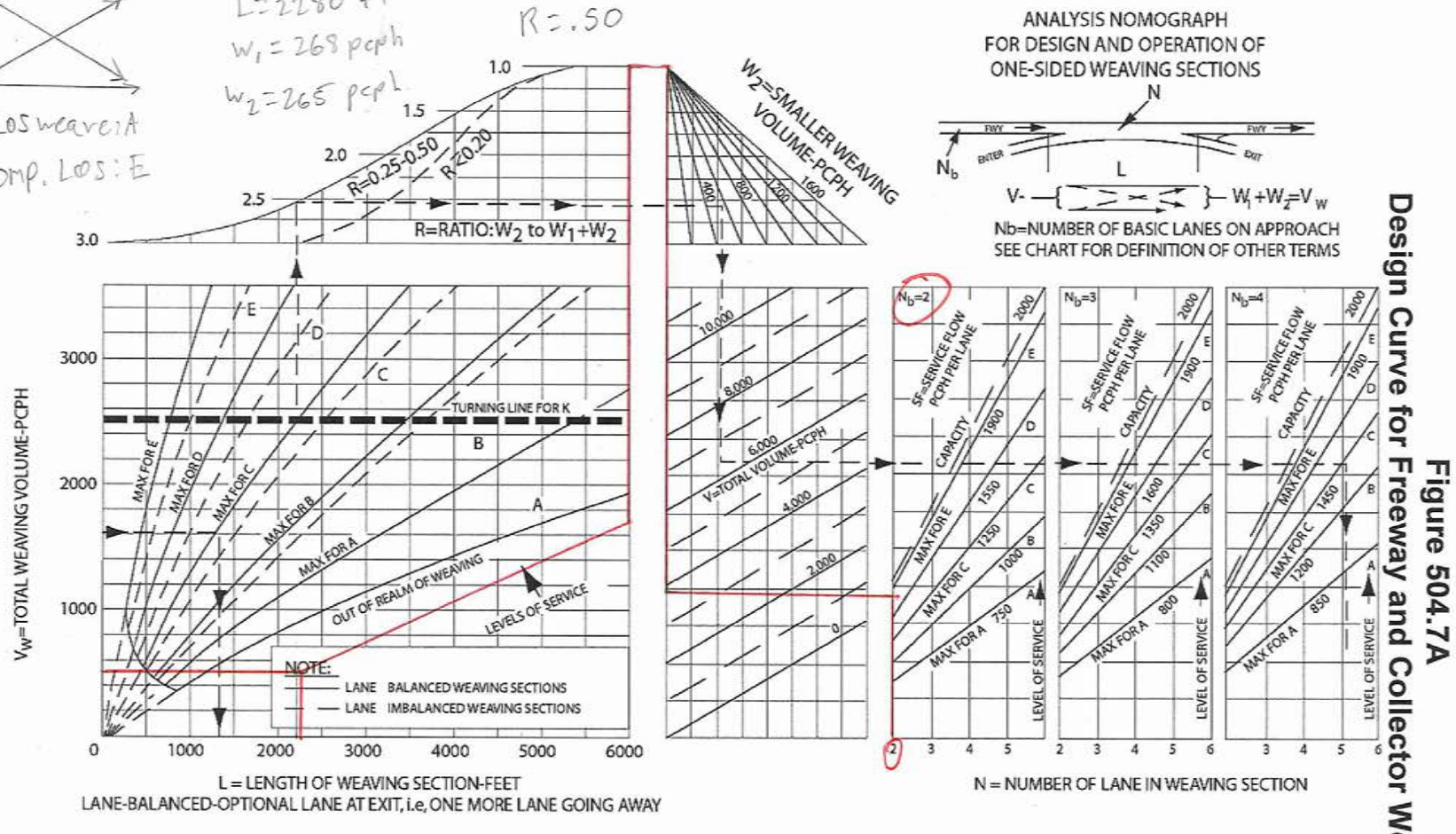
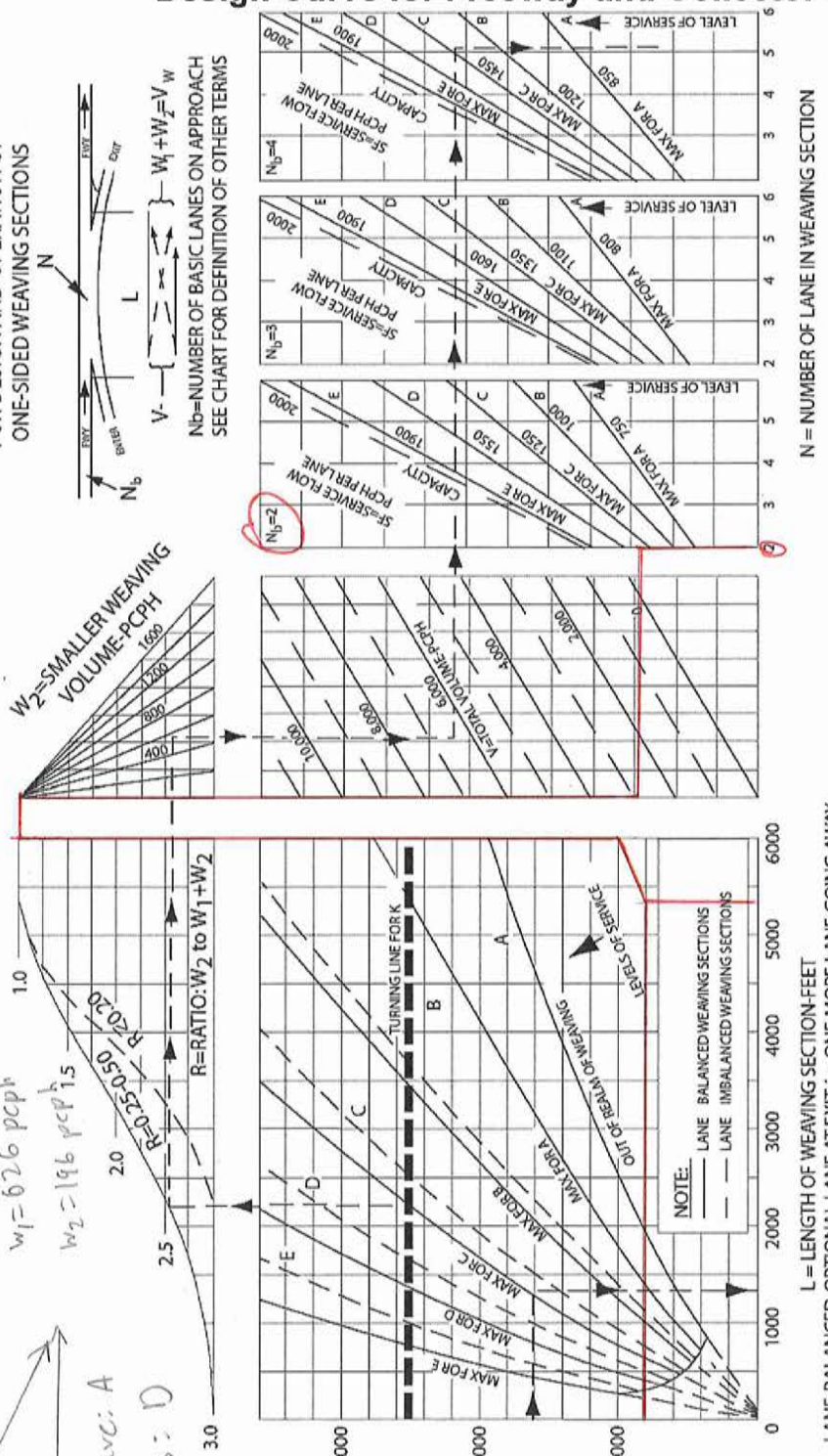


Figure 504.7A
Design Curve for Freeway and Collector Weaving

NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K." from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

Figure 504.7A
Design Curve for Freeway and Collector Weaving



NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: Madonna
Off ramp: LOVR
Near-Term Scenario + Project: AM
Direction: SB
V= 2971 pcph
L = 5490 ft
w_1 = 626 pcph
w_2 = 196 pcph
Vw = 822
R = 0.23
2149
w_1 = 626
w_2 = 196
LOS weave: A
Comp LOS: D

On ramp: Madonna
off ramp: LOVR

NT Scenario + Project: PM
Direction: SB

3249
W_1 = 569
W_2 = 373
LOS weave: A
Comp: LOS: F.

V = 4191
L = 5490 ft
W_1 = 569 pcph
W_2 = 373 pcph

V_w = 942 pcph
R = 0.40

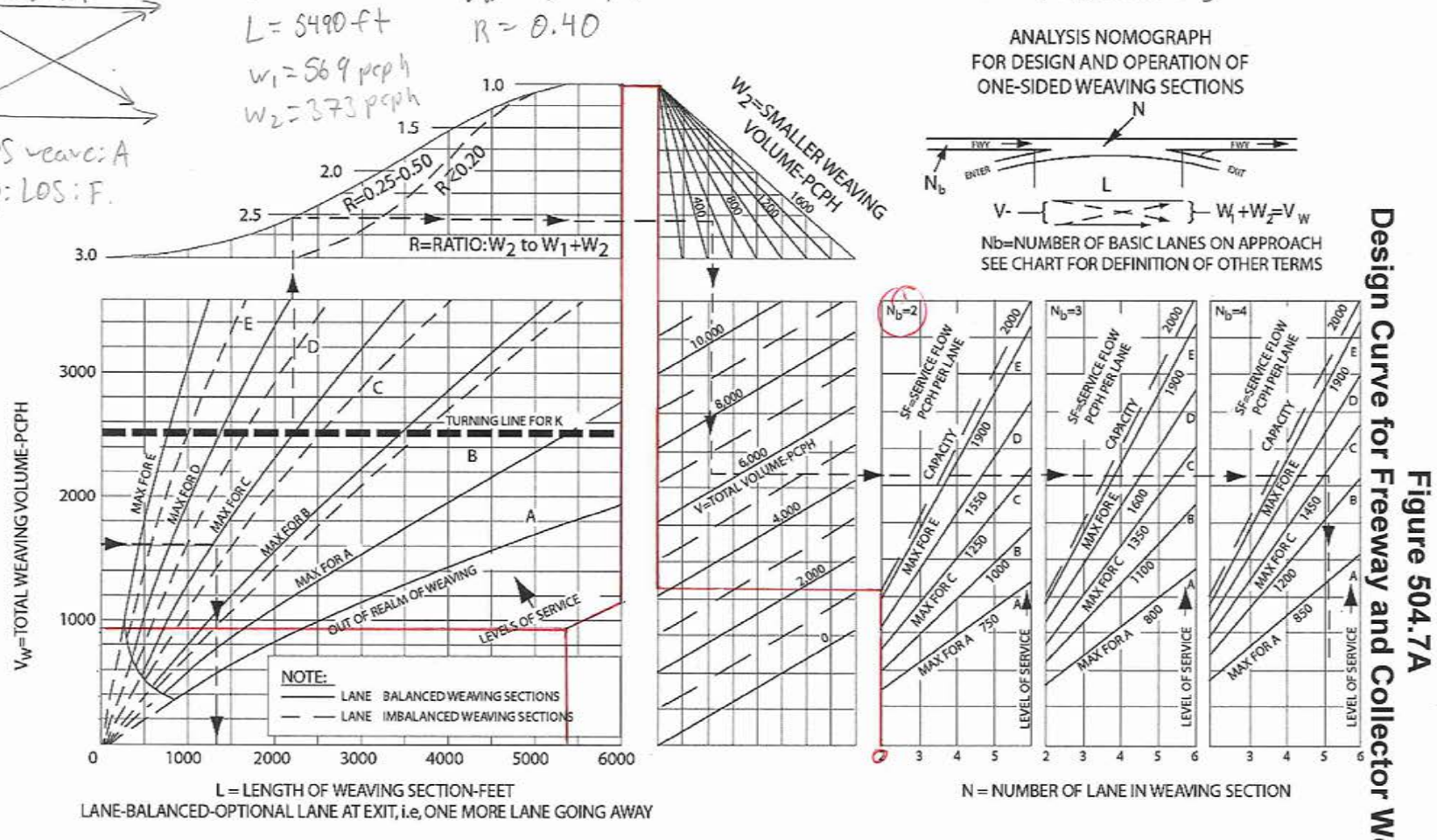


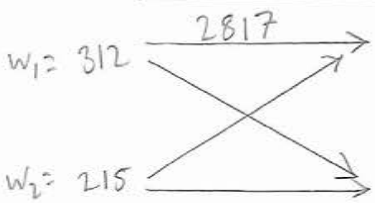
Figure 504.7A
Design Curve for Freeway and Collector Weaving

NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K:" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: LOVK
off ramp: Prado

NT Scenario 2: AM
Direction: NB



V = 3344 pcph V_w = 527 pcph
L = 4380 ft R = 0.41
W_1 = 312 pcph
W_2 = 215 pcph.

LOS weave: A
Comp LOS: E

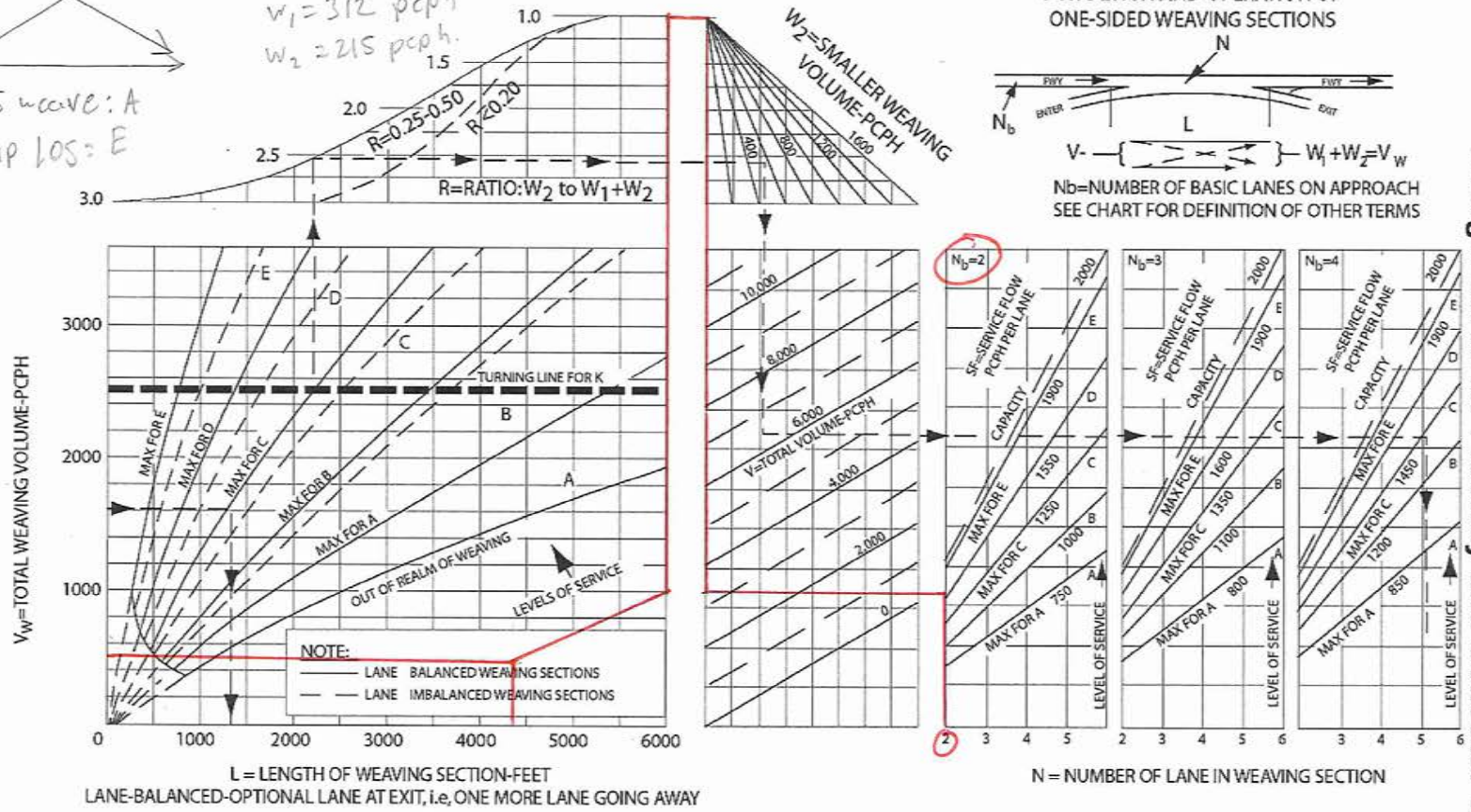


Figure 504.7A
Design Curve for Freeway and Collector Weaving

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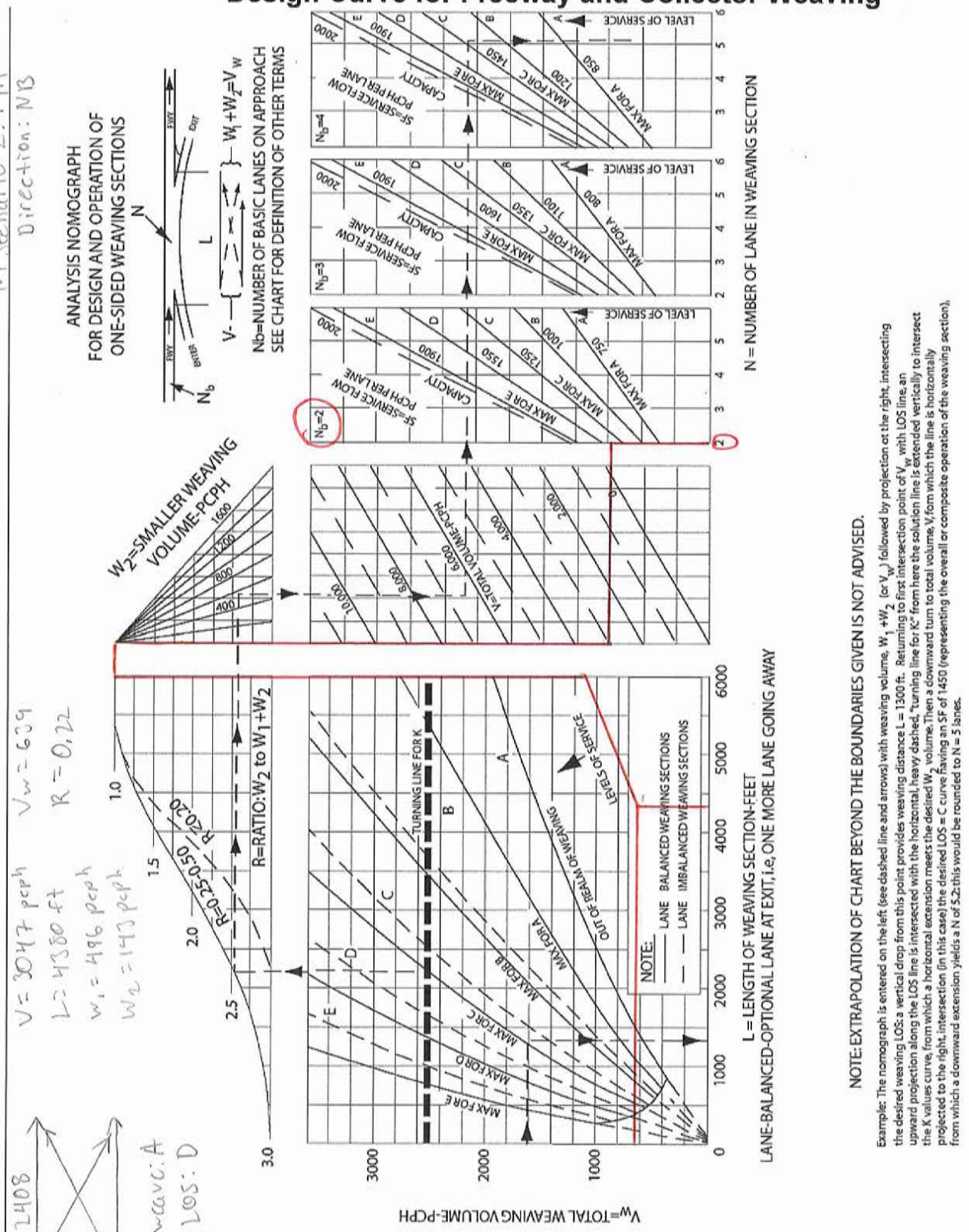
Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection at the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K:" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

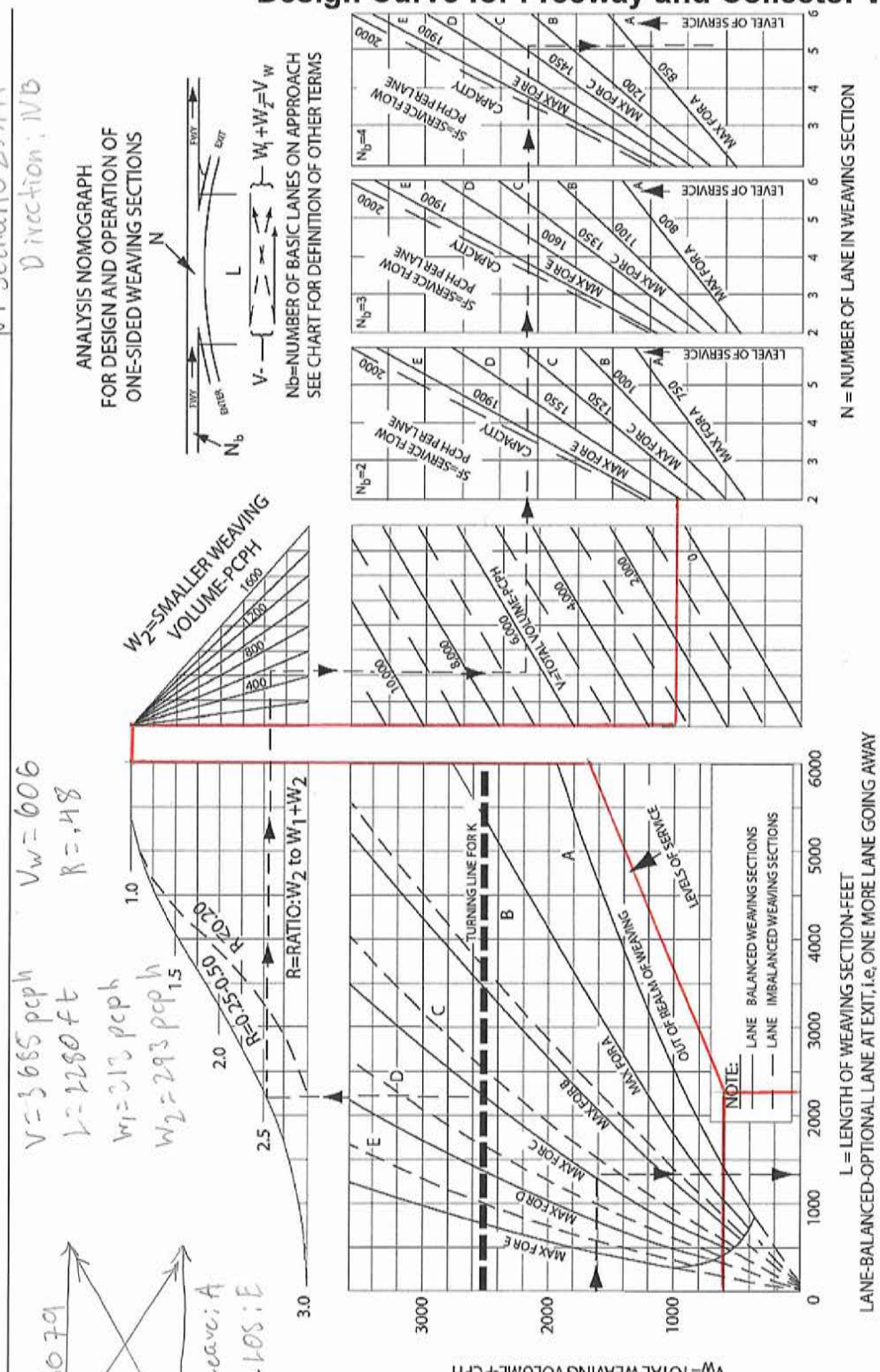
Figure 504.7A
Design Curve for Freeway and Collector Weaving



NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

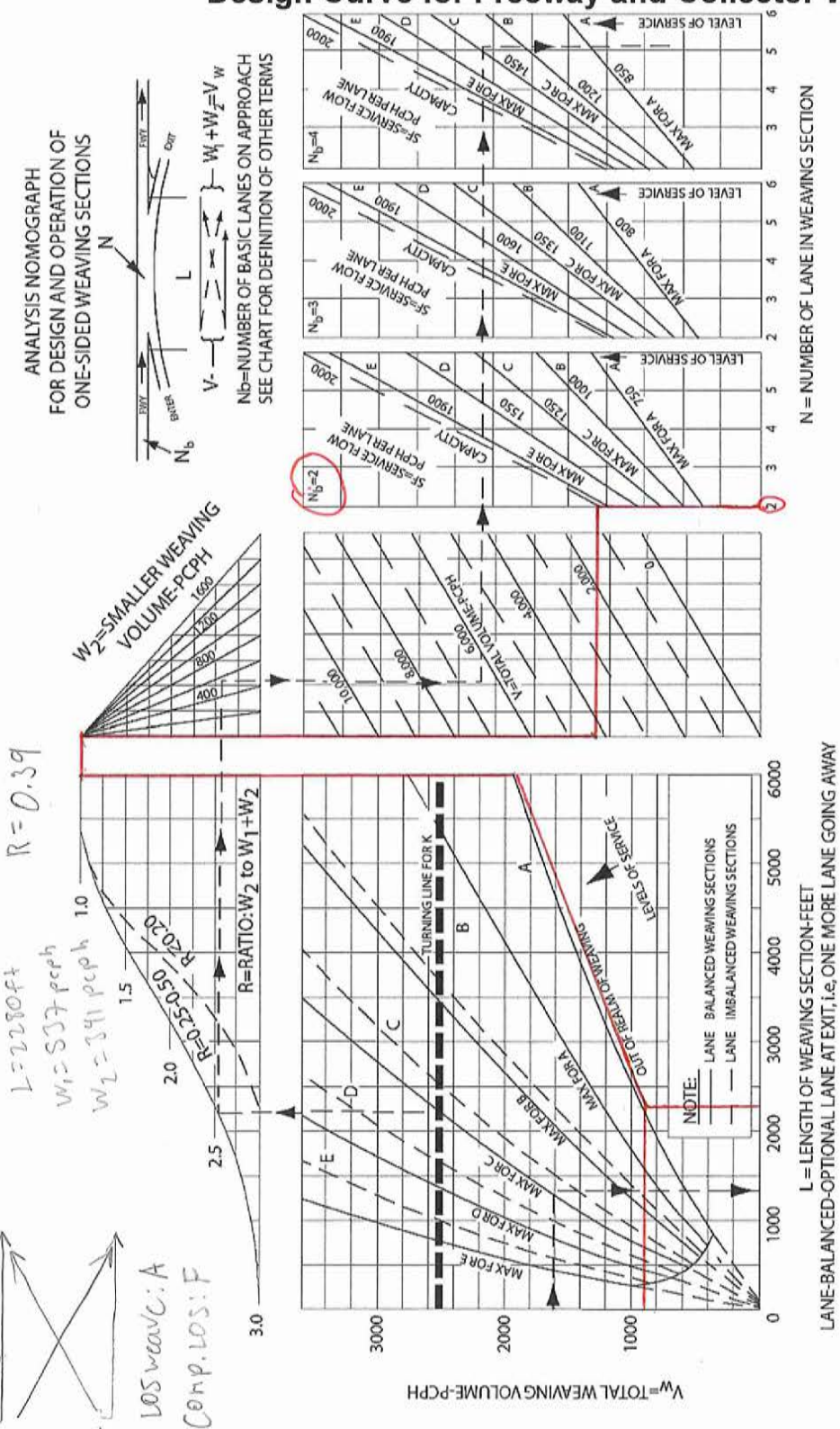
Figure 504.7A
Design Curve for Freeway and Collector Weaving



NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, $W_1 + W_2$ (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume V_w from which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

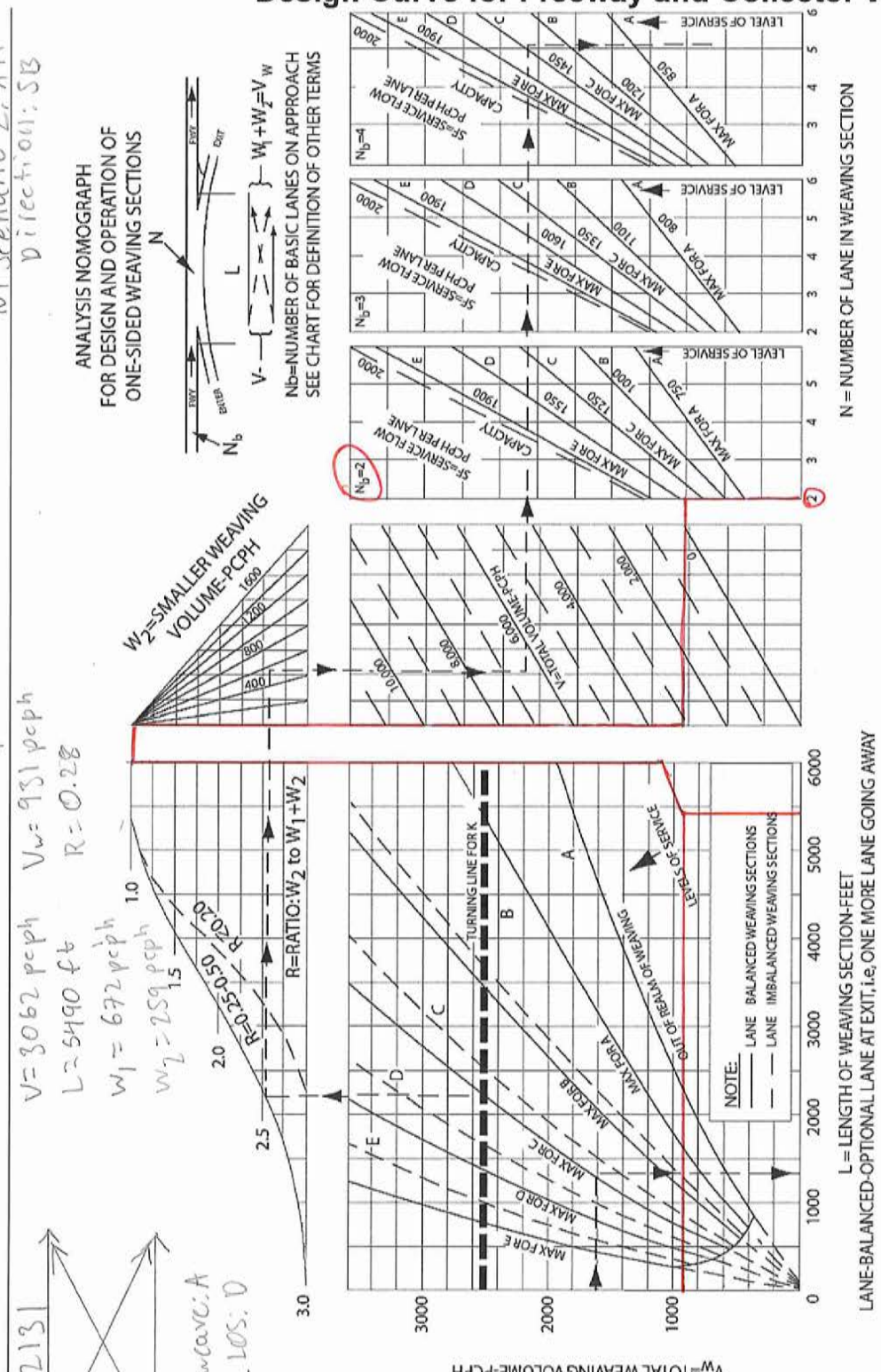
Figure 504.7A
Design Curve for Freeway and Collector Weaving



NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, $W_1 + W_2$ (or V_W) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_W with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

Figure 504.7A
Design Curve for Freeway and Collector Weaving



NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, $W_1 + W_2$ (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, from which the line is horizontally projected to the right. Intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: Madonna
off ramp: LOVR

NT Scenario 2: AM
Direction: SB

V = 3062 pcph
L = 5490 ft
W_1 = 672 pcph
W_2 = 259 pcph

V = 931 pcph
R = 0.28

2131

W_1 = 672
W_2 = 259

LOS weave: A
Comp. LOS: D

On ramp: Madonna
Off ramp: LOVR

NT Scenario 2: PM
Direction: SB

W_1 = 619
W_2 = 386
3,223

V = 4,228
L = 5490 ft
W_1 = 619 pcph
W_2 = 386 pcph

V_w = 1005 pcph
R = 0.38

LOS weave: A
Comp. LOS: F

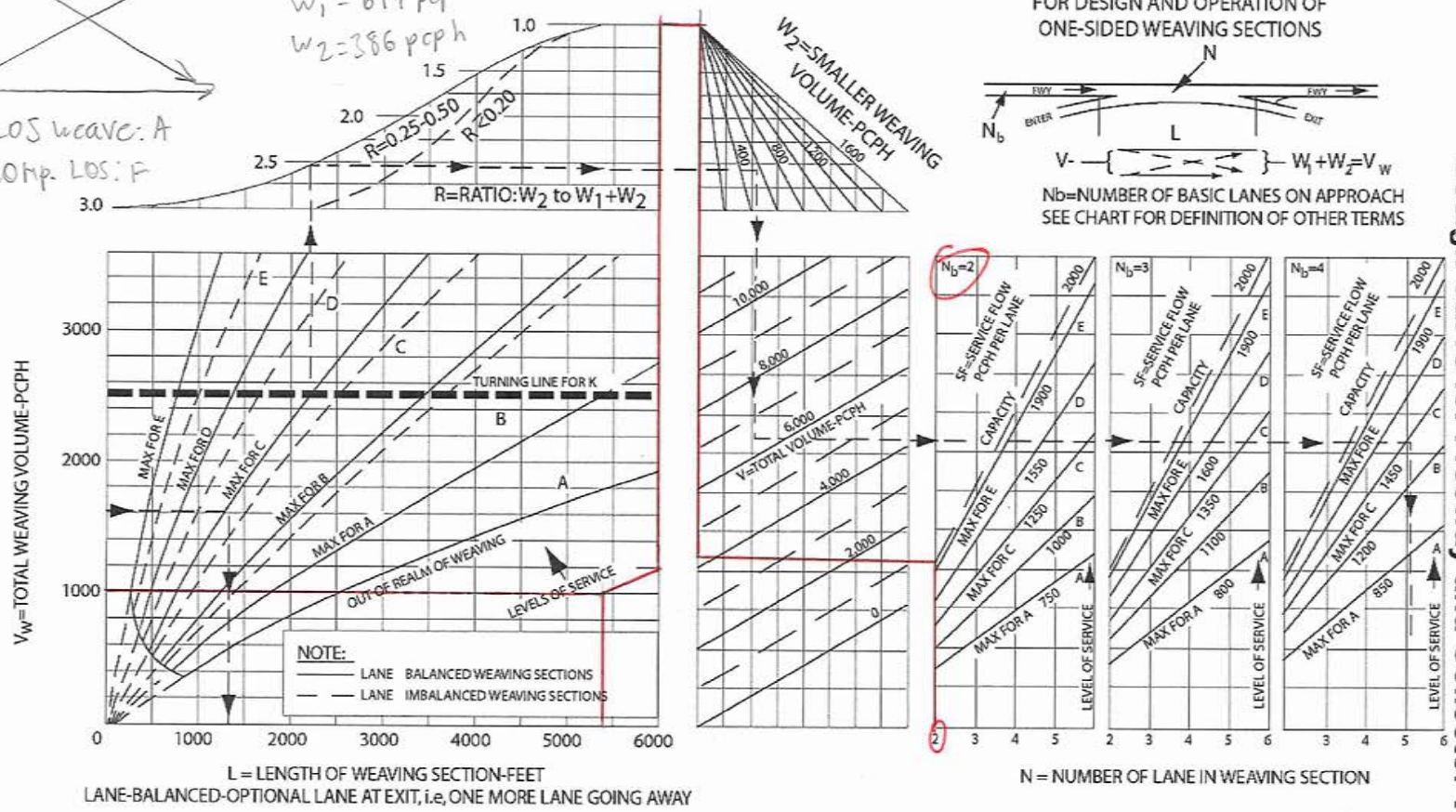


Figure 504.7A
Design Curve for Freeway and Collector Weaving

NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, $W_1 + W_2$ (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K:" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, fom which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

NT Scenario 2 + Project: AM
Direction: NB

On ramp: Lovr
off ramp: Prado

V= 3356 pcph
L=4380 ft
W1=312 pcph
W2=215 pcph

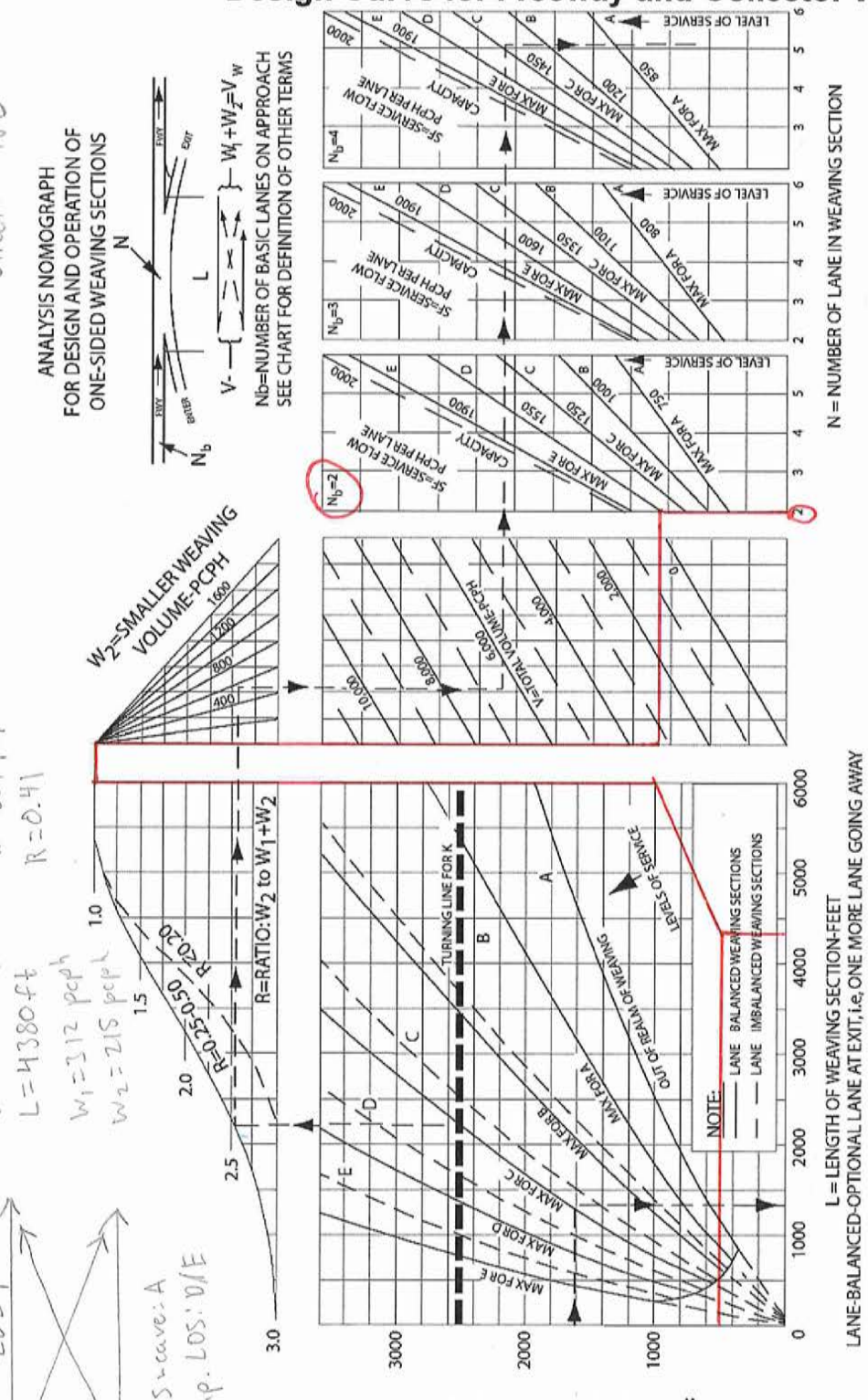
Vw = 529 pcph
R=0.41

2829

W1= 312
W2= 215

LOS weave: A
Comp. LOS: D/E

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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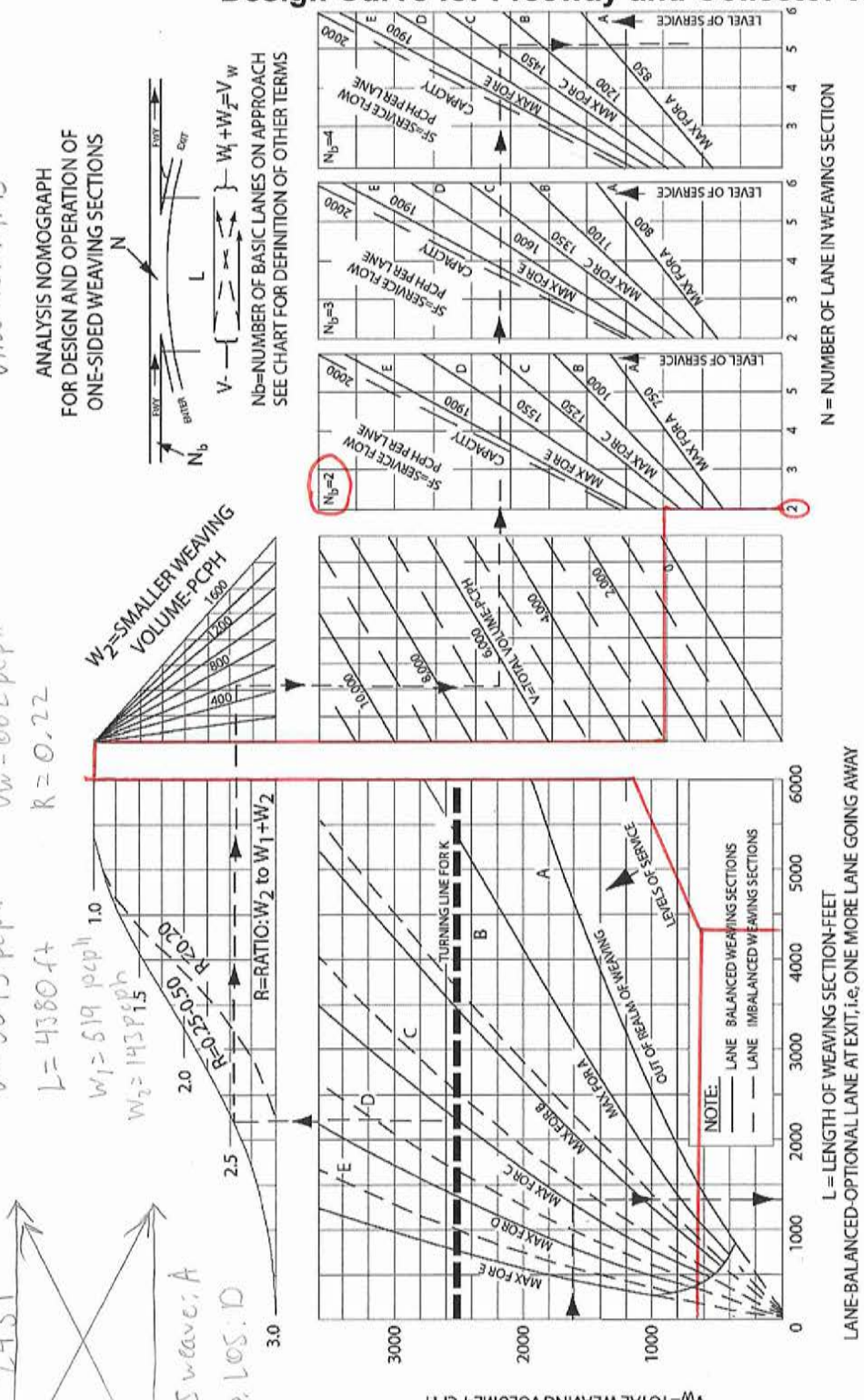
Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, $W_1 + W_2$ (or V_w) followed by projection at the right, intersecting the desired weaving LOS; a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V_w form which the line is horizontally projected to the right. Intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: LOVR
off ramp: Prado
NT Scenario 2+ Project: PM
Direction: NB

V= 3093 pcph
L= 4380 ft
W1= 619 pcph
W2= 143 pcph

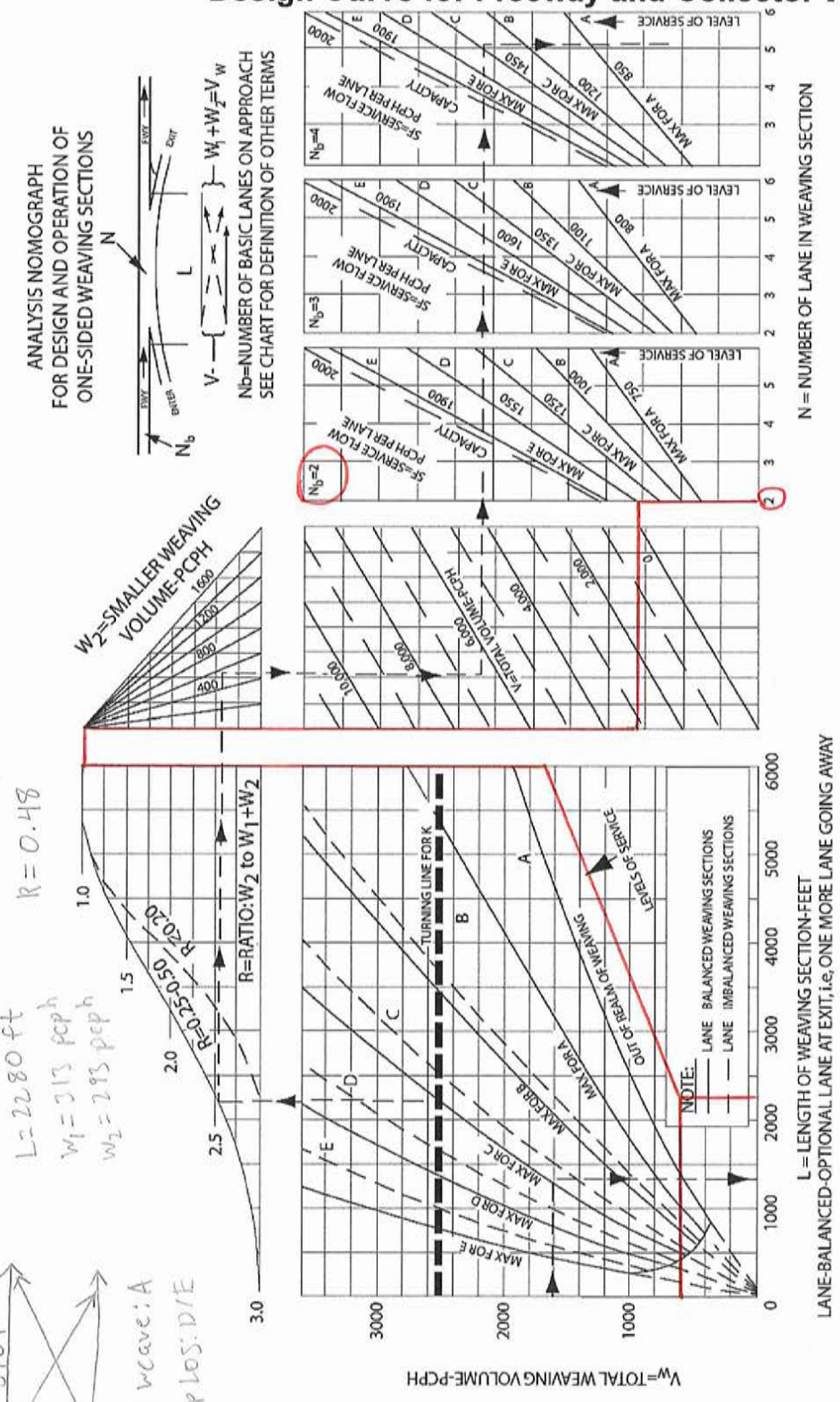
Vw = 662 pcph
K = 0.22

2431

W2 143
W1 = 519

LOS weave: A
Comp. LOS: D

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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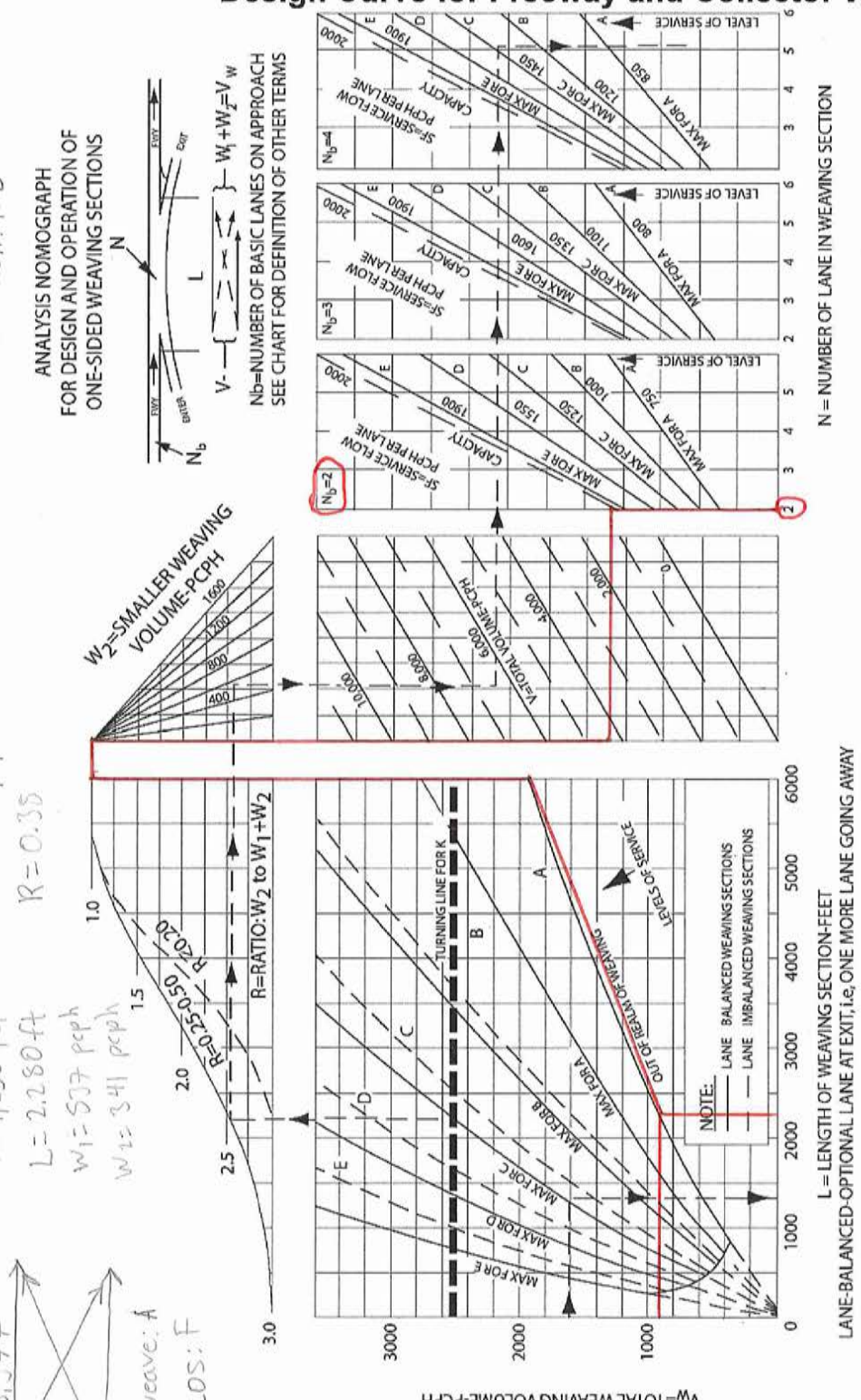
Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2-this would be rounded to N = 5 lanes.

On ramp: Prado
off ramp: Madonna
NT Scenario 2 + project: AM
Direction: NB
V = 3703
L = 2280 ft
W_1 = 313 pcph
W_2 = 293 pcph
V_w = 606 pcph
R = 0.48
3101
W_2 = 293
W_1 = 313
LOS weave: A
Comp LOS: D/E

Figure 504.7A
Design Curve for Freeway and Collector Weaving

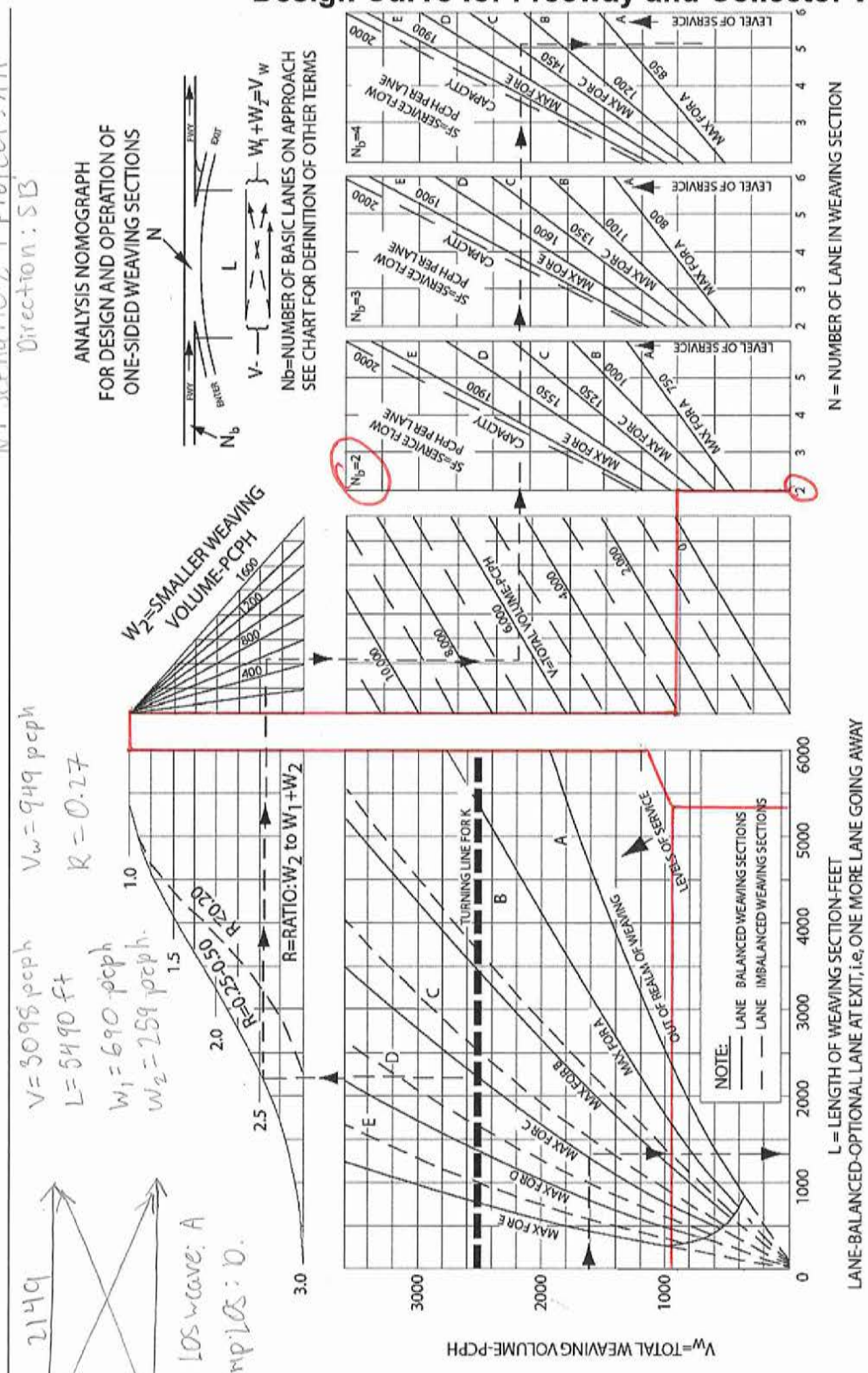


NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS; a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right. Intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: Prado
Off ramp: Madonna
NT Scenario 2 + Project: PM
Direction: NB
V_w = 878 pcph
R = 0.35
V = 4,155 pcph
L = 2,280 ft
W_1 = 537 pcph
W_2 = 341 pcph
3,377
W_2 = 341
W_1 = 537
LOS weave: A
Comp LOS: F

Figure 504.7A
Design Curve for Freeway and Collector Weaving

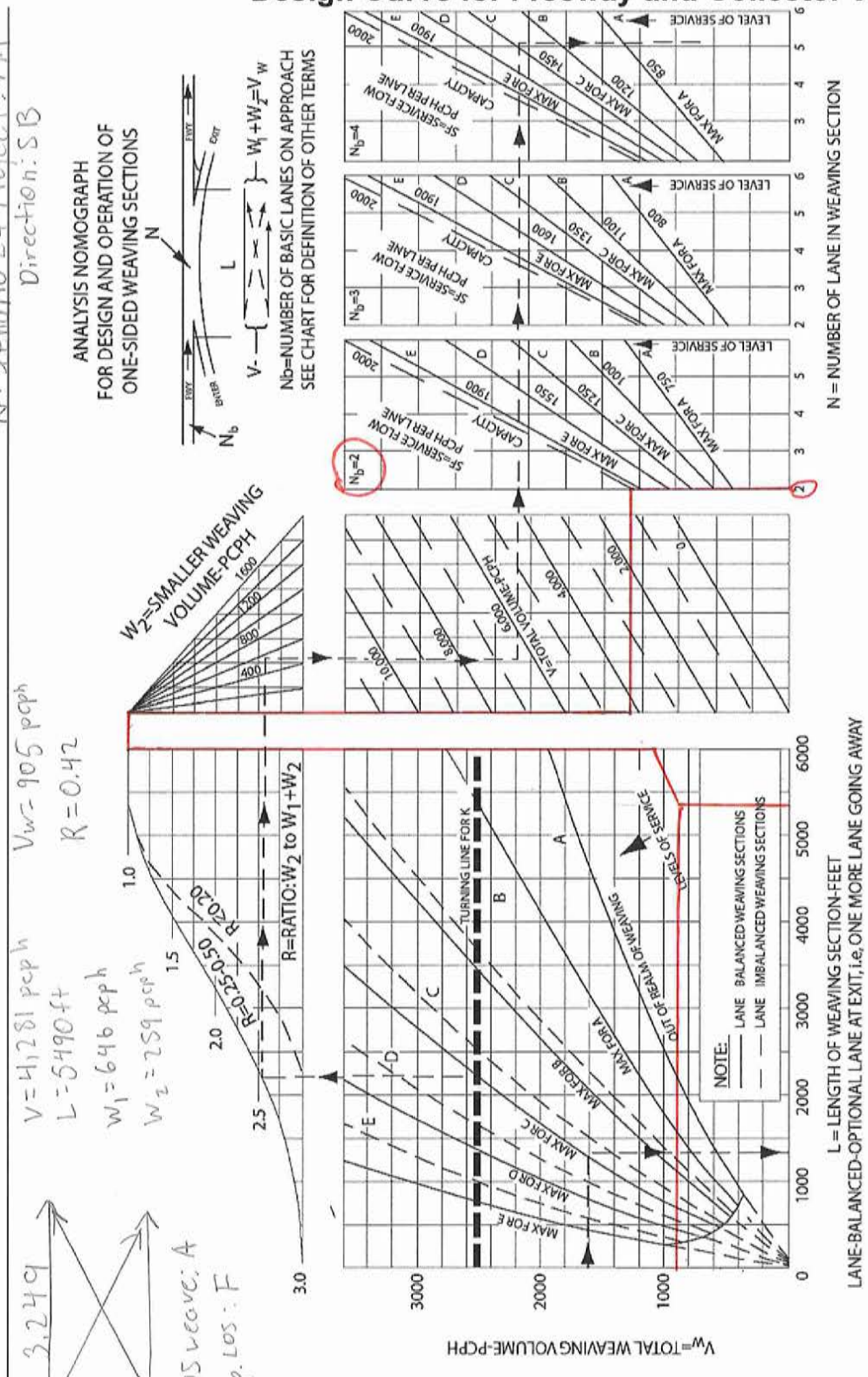


NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection ot the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

On ramp: Madonna
Off ramp: LOVR
NT Scenario 2 + Project: AM
Direction: SB
V = 3095 pcph
L = 5490 ft
W_1 = 690 pcph
W_2 = 259 pcph.
V_w = 949 pcph
K = 0.27
LOS weave: A
Complies: D.
2149
W_1 = 690
W_2 = 259

Figure 504.7A
Design Curve for Freeway and Collector Weaving



NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, W_1+W_2 (or V_w) followed by projection on the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

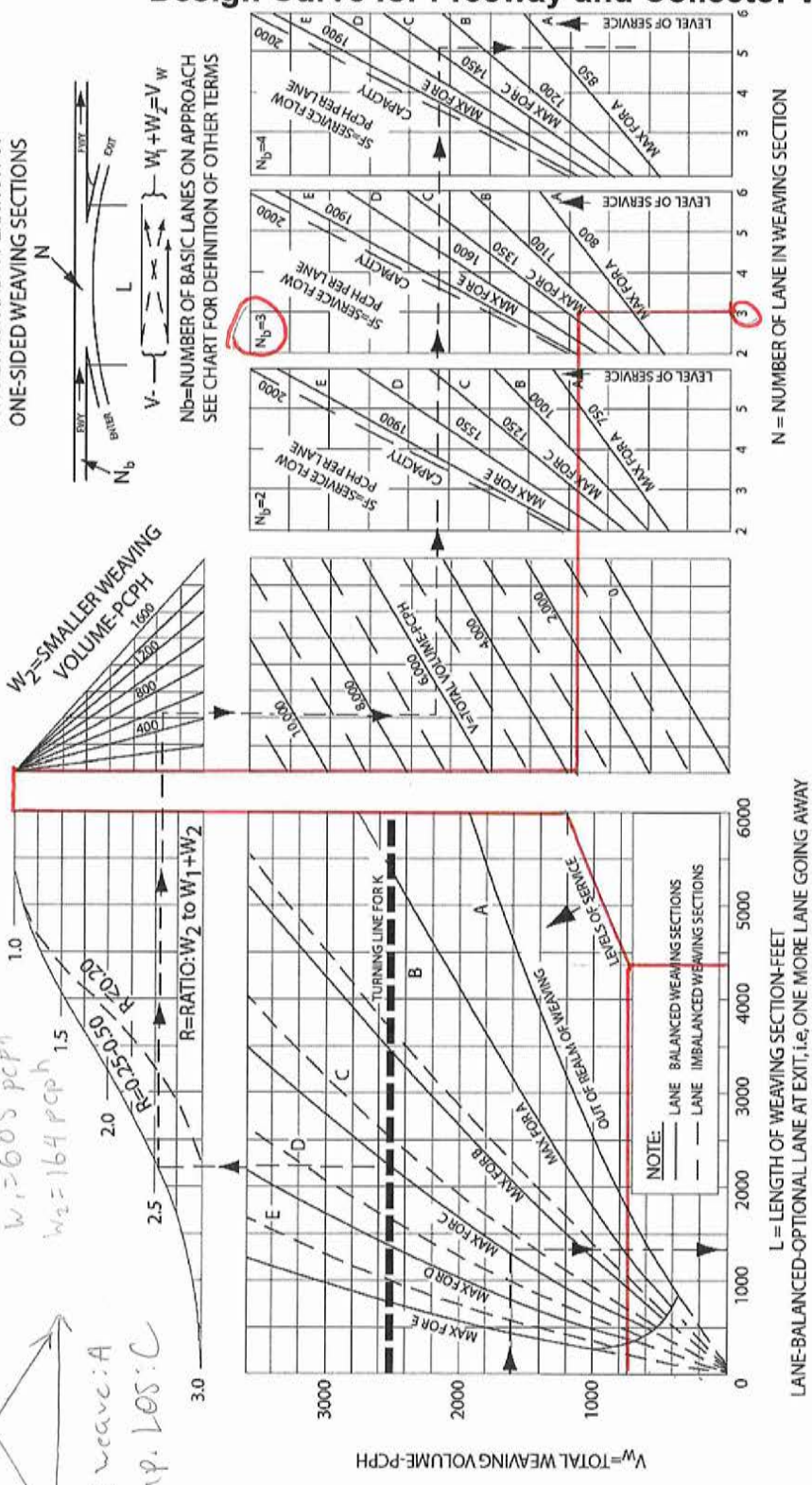
On ramp: Madonna
Off ramp: LOVR
NT Scenario 2+ Project: PM
Direction: SB

V = 4,281 pcph
L = 5490 ft
W_1 = 646 pcph
W_2 = 259 pcph

Vw = 905 pcph
R = 0.42

3,249
646
386
LOS weave: A
Comp. LOS: F

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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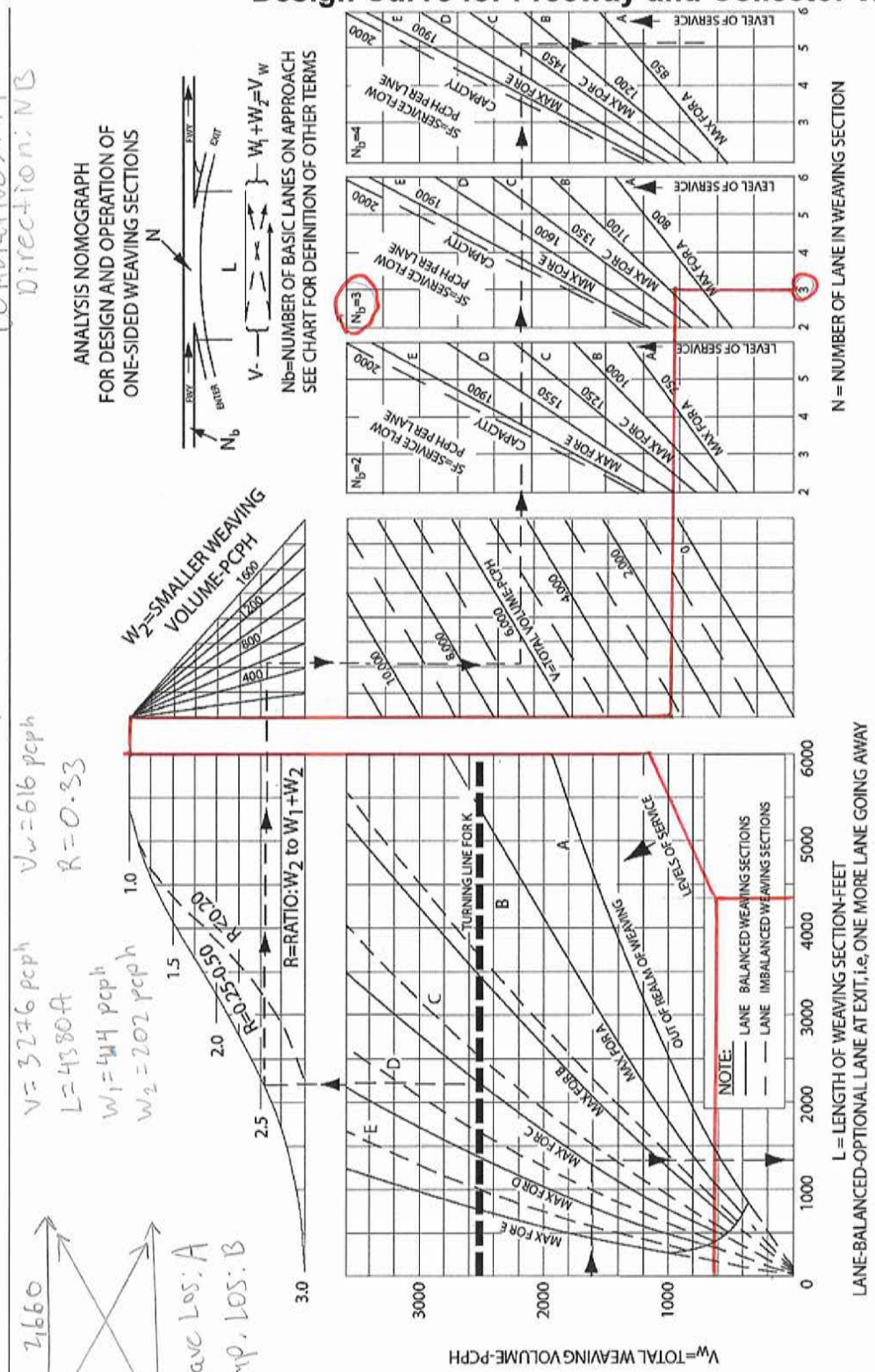

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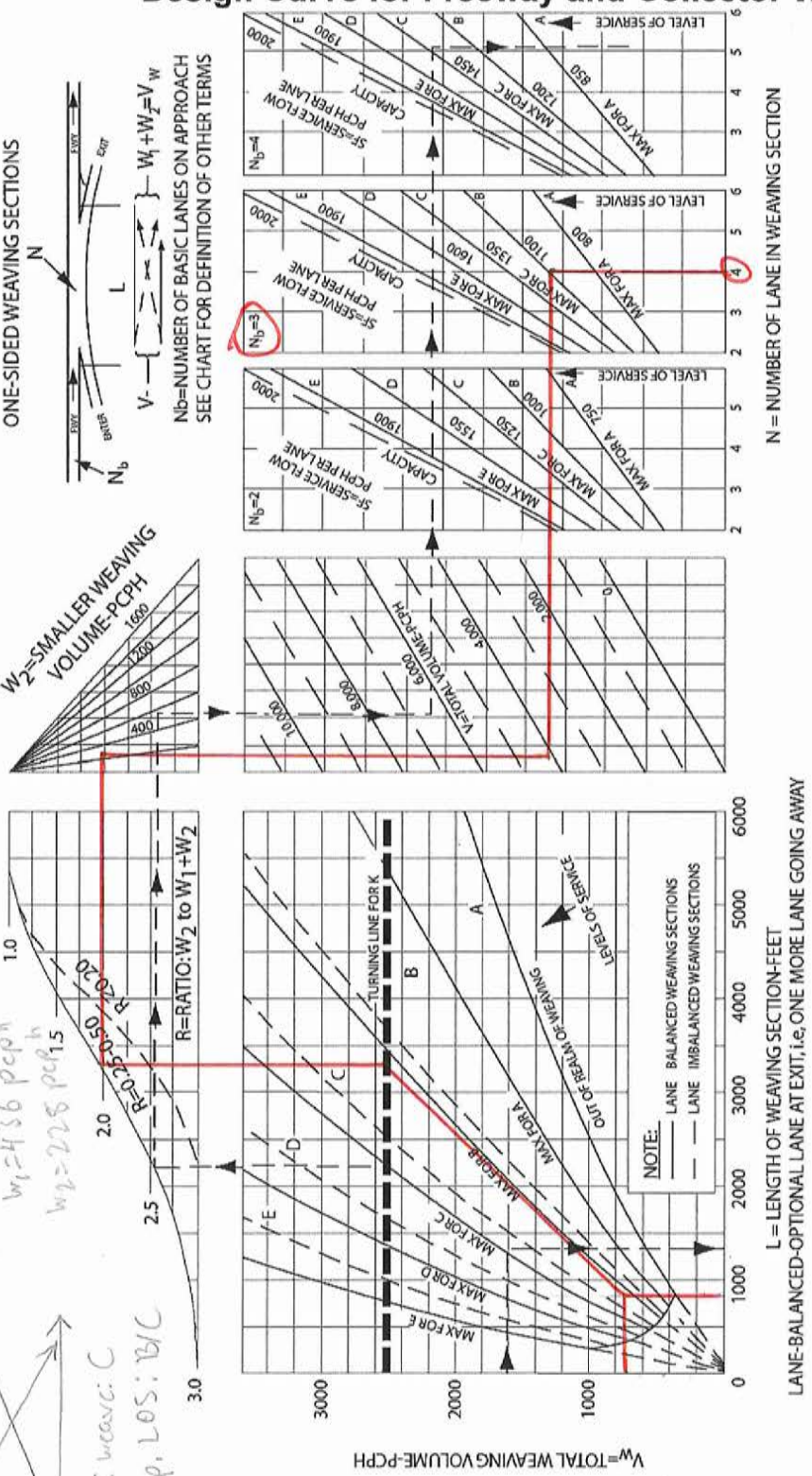

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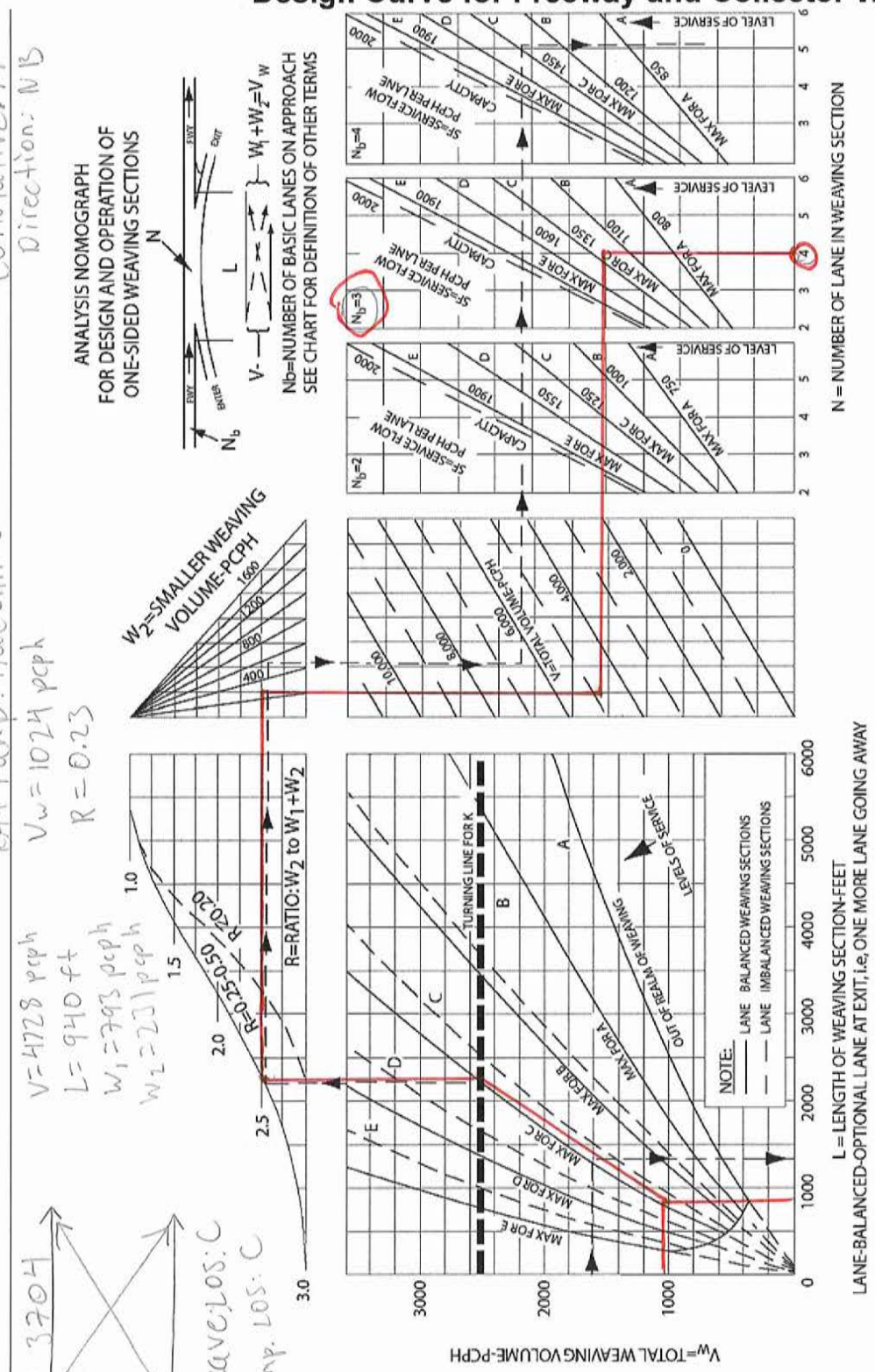

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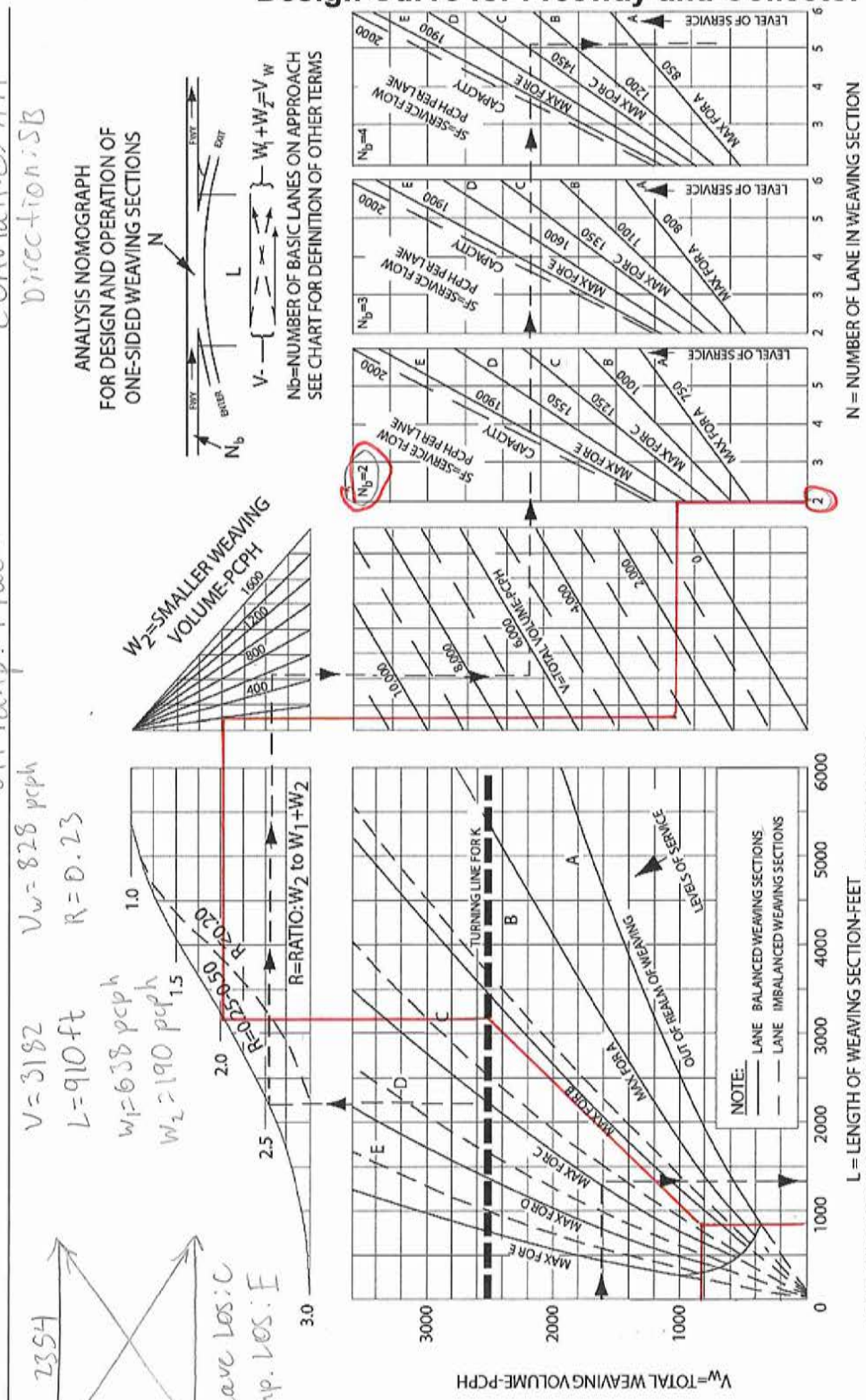
On ramp: Prado
off ramp: Madonna
Cumulative: PM
Direction: NB
Vw = 1024 pcph
R = 0.23
V = 4728 pcph
L = 940 ft
W1 = 793 pcph
W2 = 231 pcph
3204
231
793
weave LOS: C
Comp. LOS: C

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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Example: The nomograph is entered on the left (see dashed line and arrows) with weaving volume, $W_1 + W_2$ (or V_w) followed by projection of the right, intersecting the desired weaving LOS: a vertical drop from this point provides weaving distance L = 1300 ft. Returning to first intersection point of V_w with LOS line, an upward projection along the LOS line is intersected with the horizontal, heavy dashed, "turning line for K" from here the solution line is extended vertically to intersect the K values curve, from which a horizontal extension meets the desired W_2 volume. Then a downward turn to total volume, V, form which the line is horizontally projected to the right, intersection (in this case) the desired LOS = C curve having an SF of 1450 (representing the overall or composite operation of the weaving section), from which a downward extension yields a N of 5.2: this would be rounded to N = 5 lanes.

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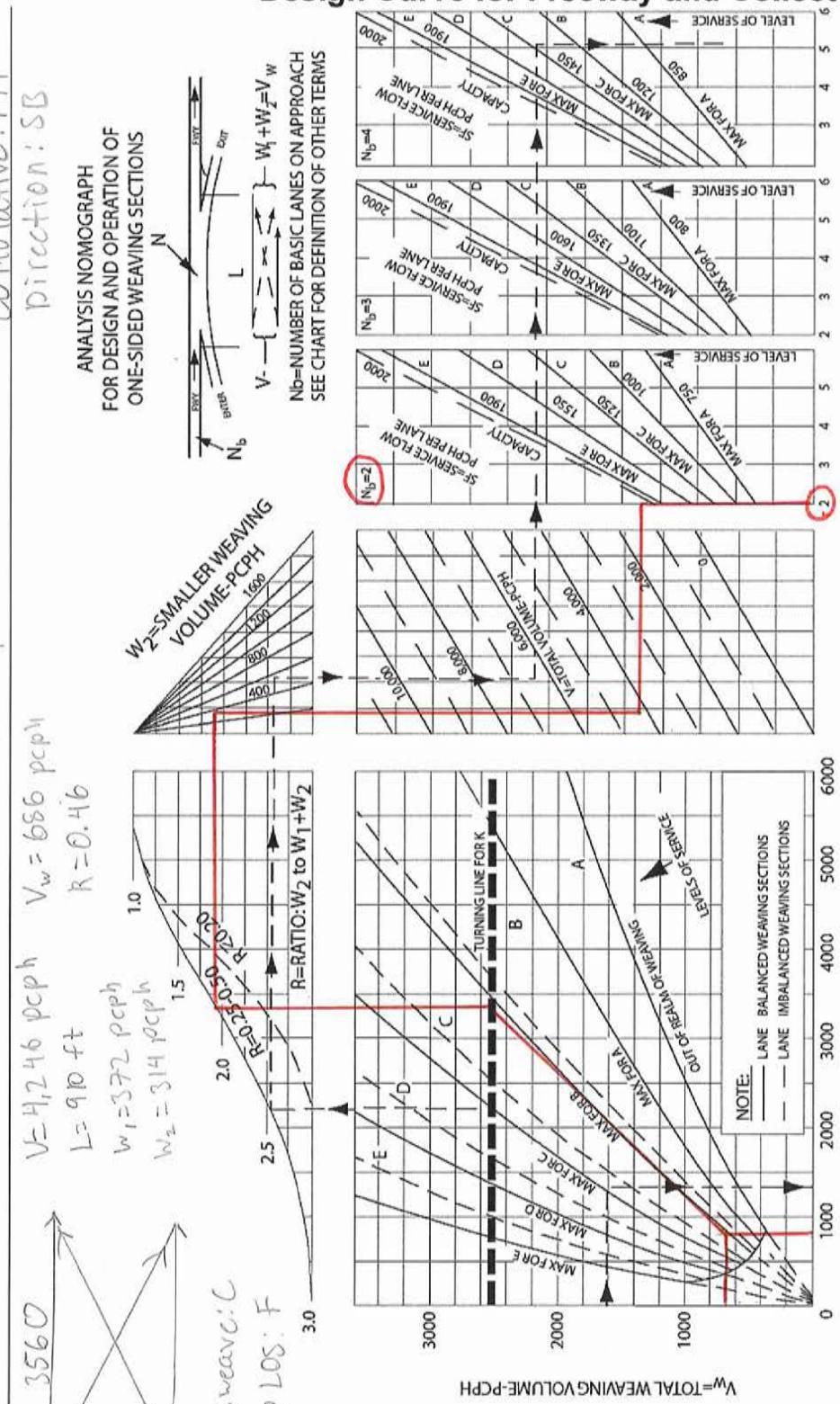

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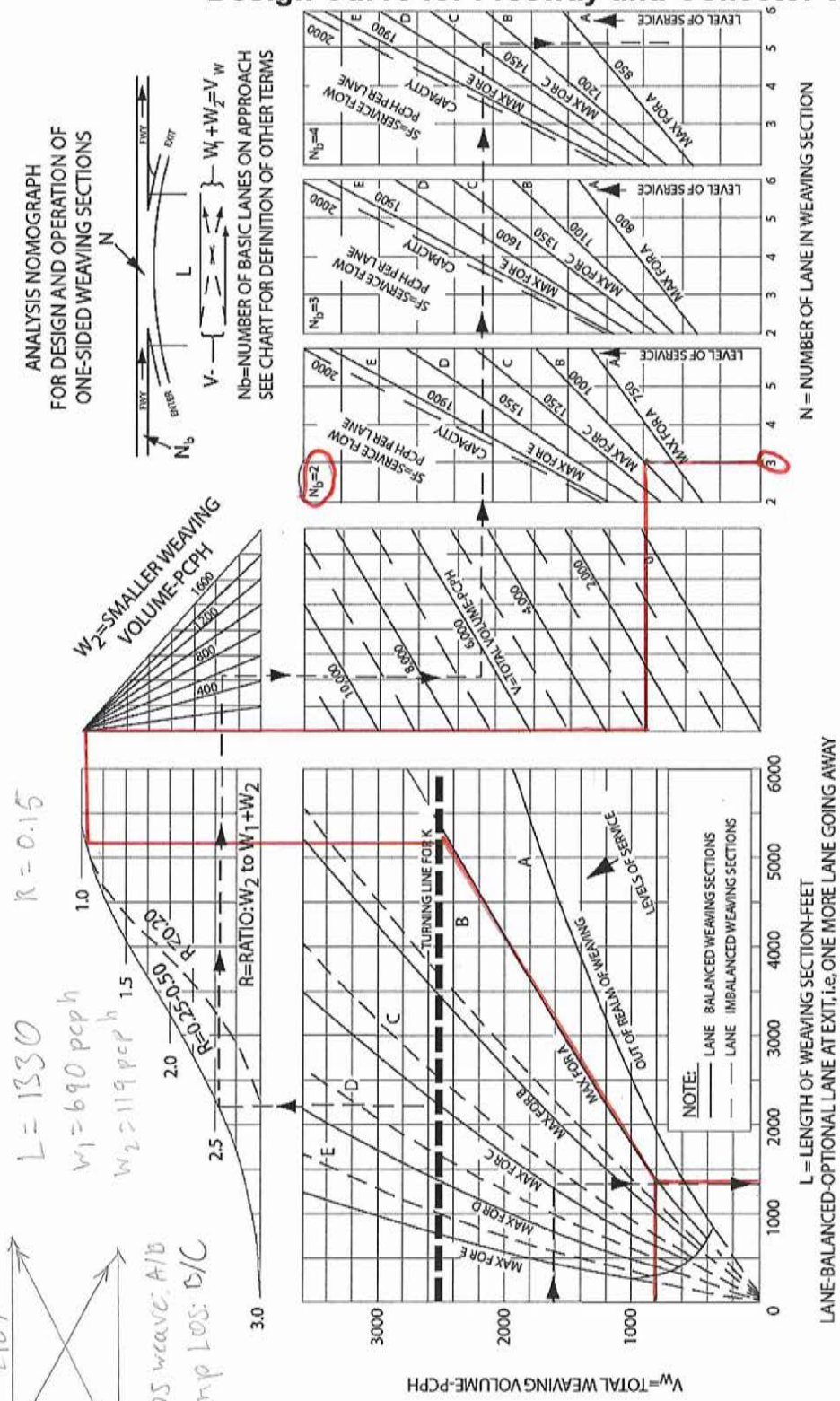

NOTE: EXTRAPOLATION OF CHART BEYOND THE BOUNDARIES GIVEN IS NOT ADVISED.

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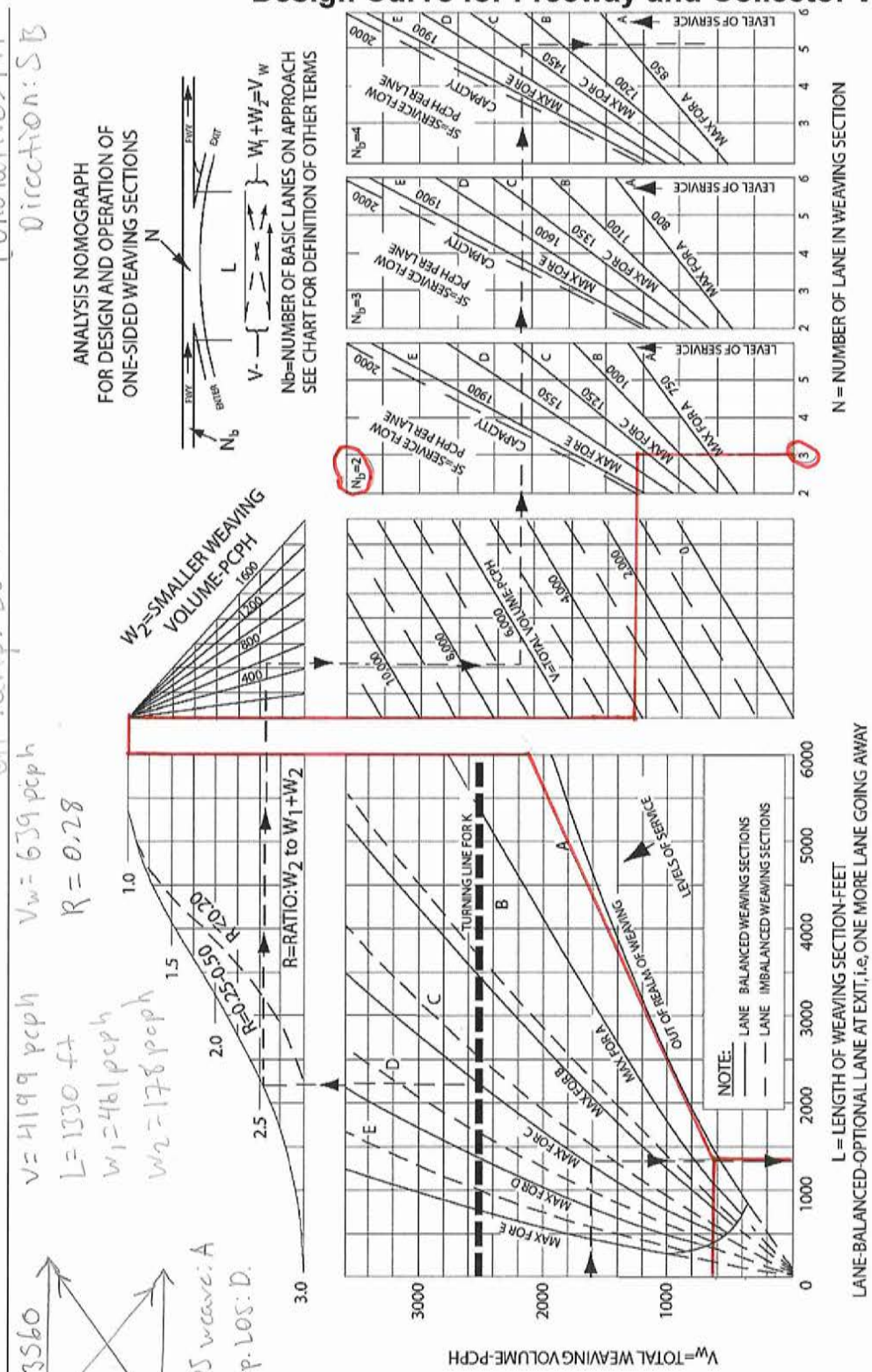

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On ramp: Prado
Off ramp: LOVR
Cumulative: PM
Direction: SB

V= 4199 pcph
L= 1330 ft
W_1= 461 pcph
W_2= 1738 pcph

V_w= 639 pcph
R = 0.28

3560
461
178

LOS weave: A
Comp. LOS: D.

On ramp: LOVR
Off ramp: Prado

Cumulative + Project AM
Direction: NB

W_1 = 605
W_2 = 183
3123

LOS weave: A
Comp. LOS: C

V = 3911 pcph
L = 4380 ft
W_1 = 605 pcph
W_2 = 183 pcph

V_w = 788 pcph
R = 0.23

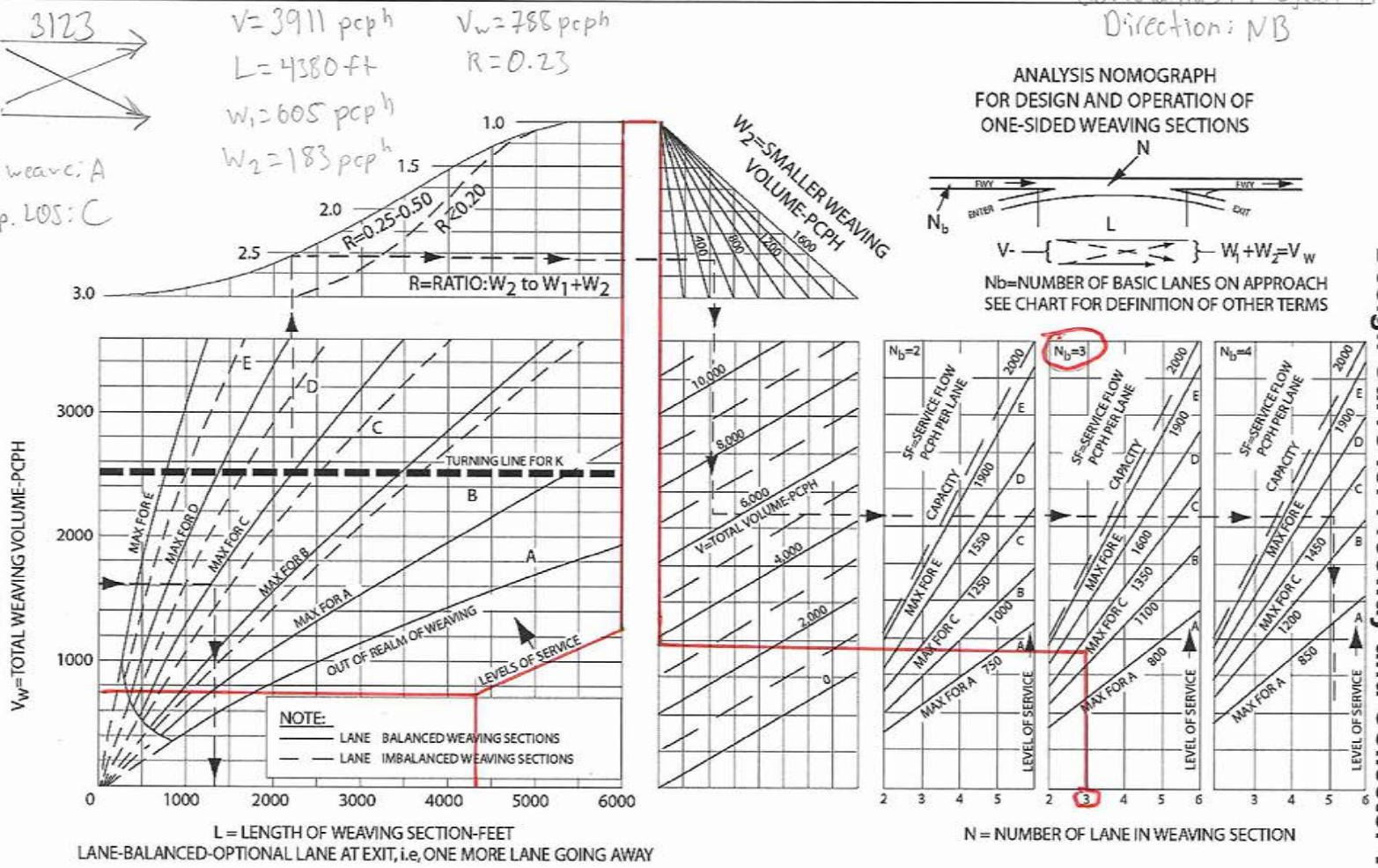

Figure 504.7A
Design Curve for Freeway and Collector Weaving

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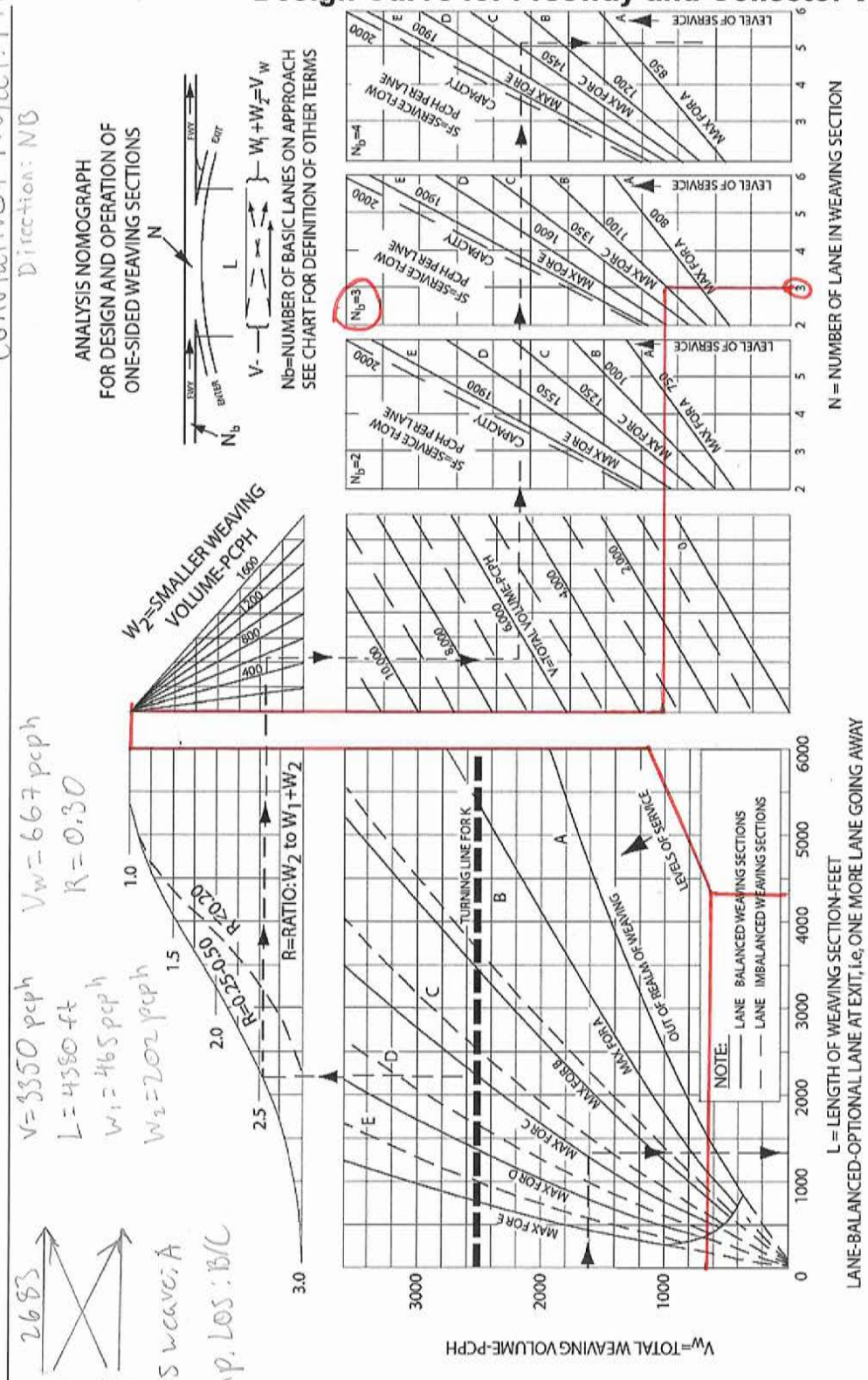

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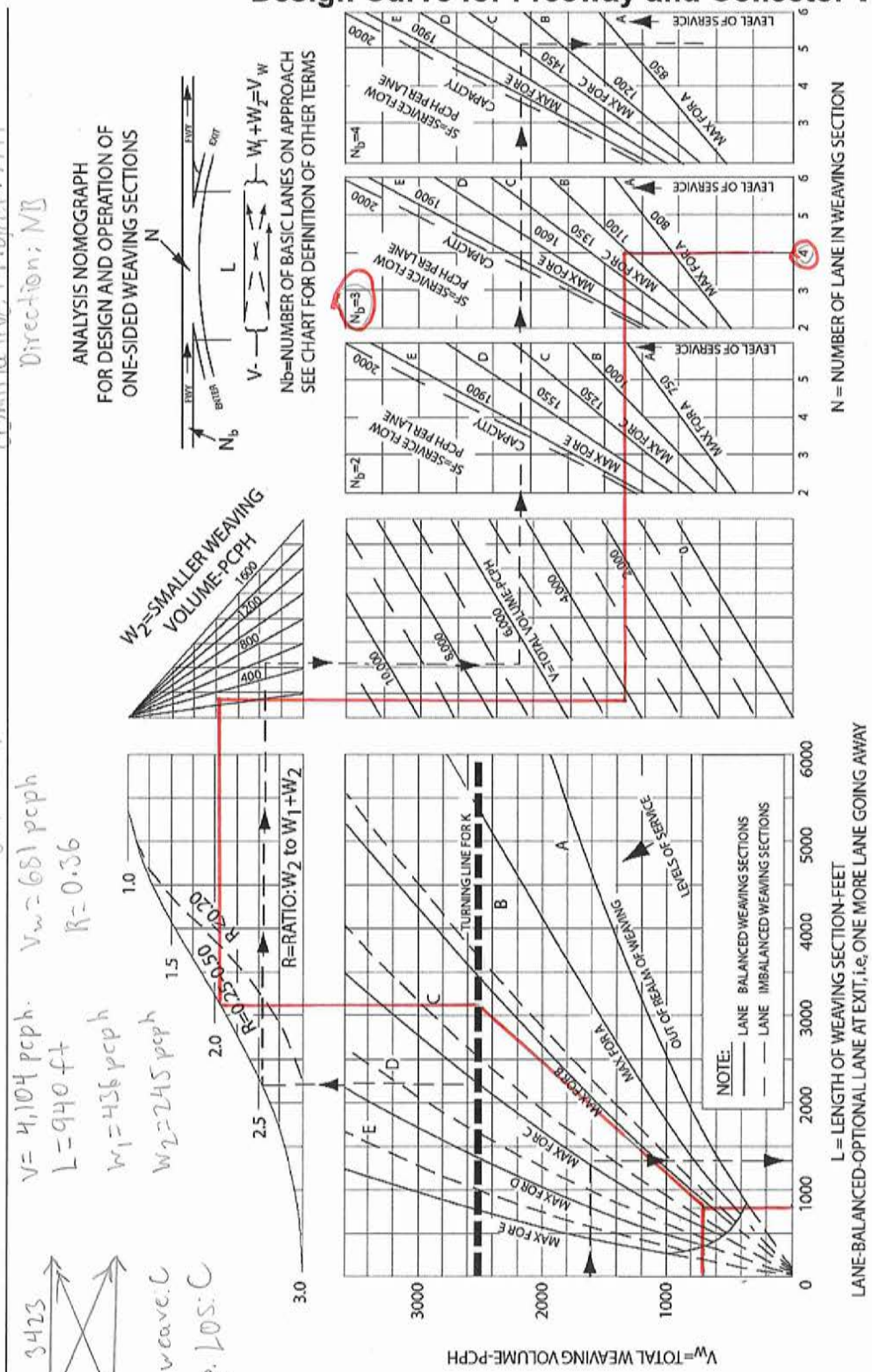

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On ramp: Prado
Off ramp: Madonna
Commuter + Project: AM
Direction: NB

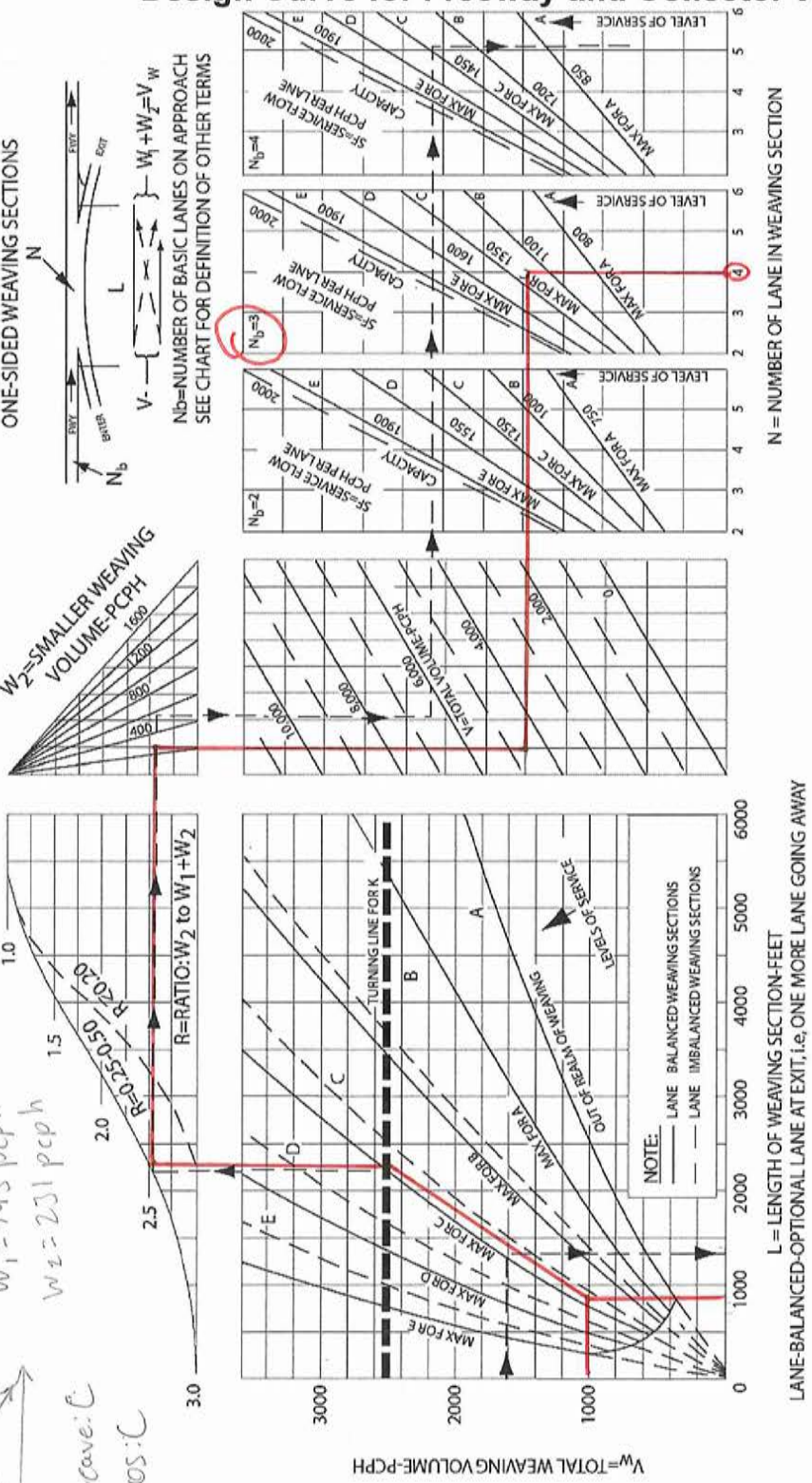
V= 4,104 pcph
L=940 ft
W_1=436 pcph
W_2=245 pcph

Vw=681 pcph
R=0.36

245 3423
436

LOS weave: C
Comp. LOS: C

Figure 504.7A
Design Curve for Freeway and Collector Weaving



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On ramp: Prado
off ramp: Madonna
Cumulative project: PM
Direction: NB

V = 4751 pcph
L = 940 ft
W_1 = 793 pcph
W_2 = 231 pcph
V_w = 1024
R = 0.23

3727
231
793
LOS weave: C
Comp. LOS: C

On ramp: Madonna
off ramp: Prado

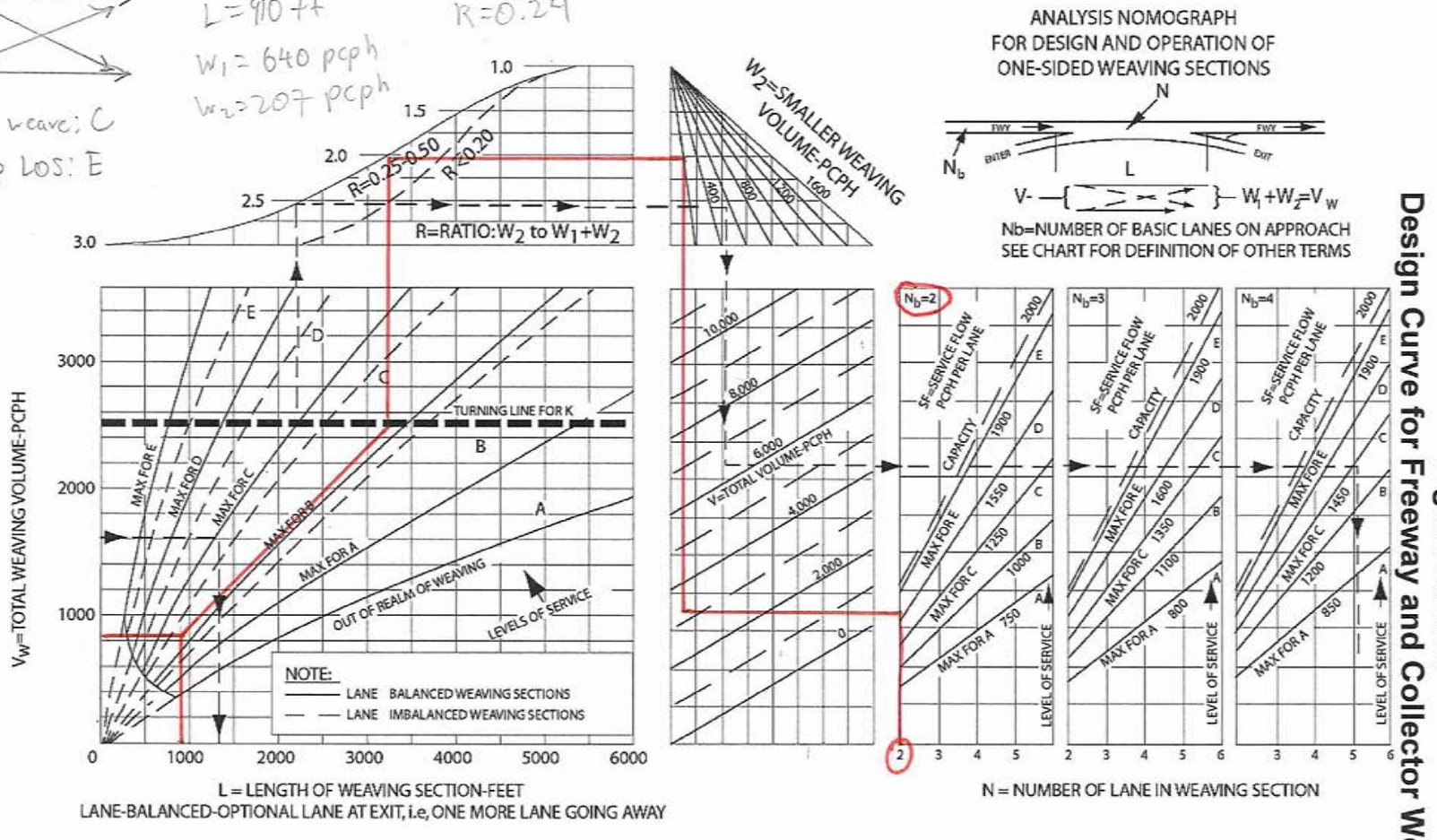
Cumulative + Project: AM
Direction: SB

2372
640
207

LOS weave: C
Comp LOS: E

V = 3219 pcph
L = 910 ft
W_1 = 640 pcph
W_2 = 207 pcph

V_w = 847 pcph
R = 0.24



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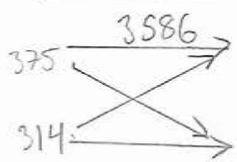
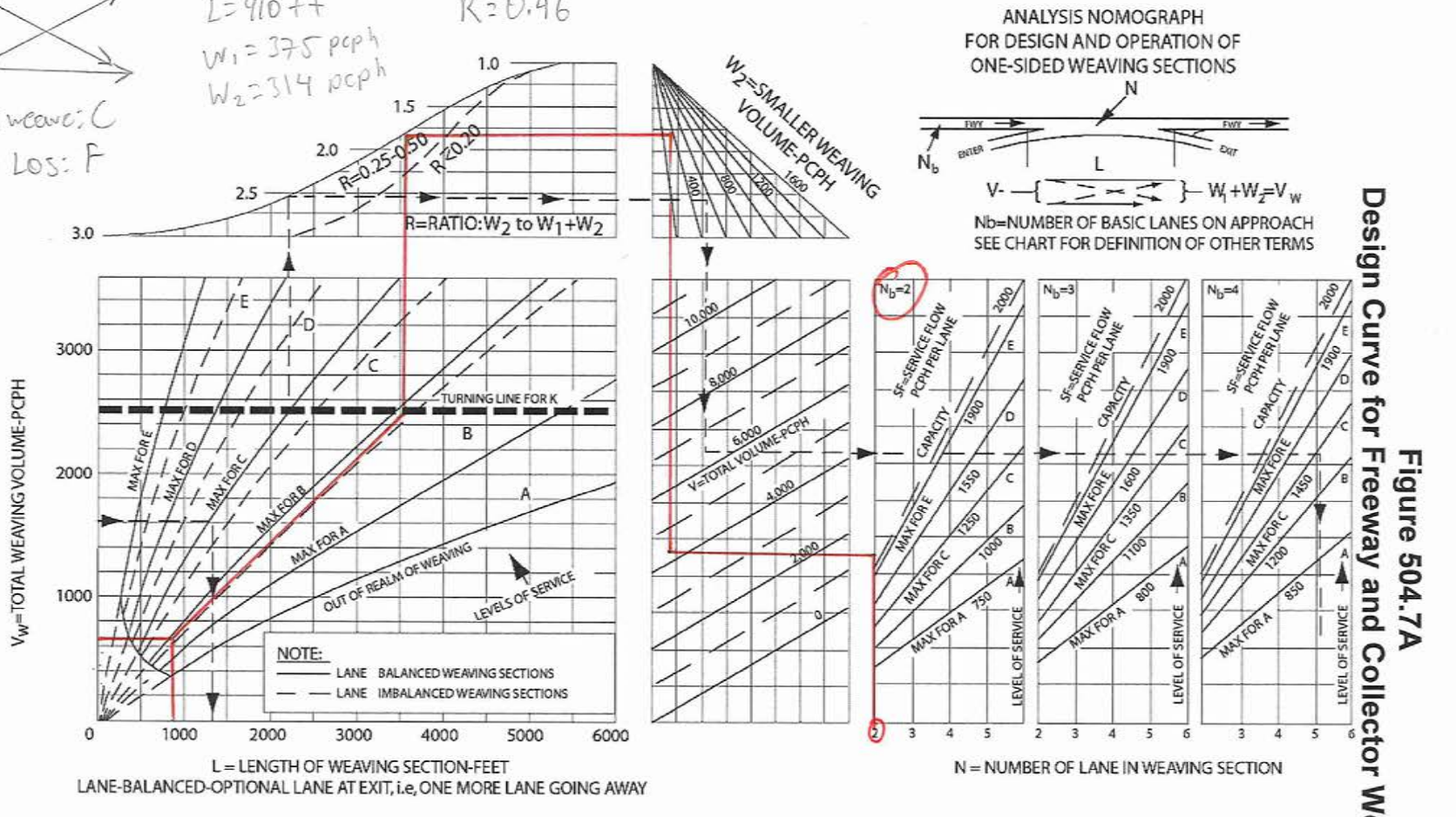
On ramp: Madonna
off ramp: Prado

Cumulative + Project: PM
Direction: SB



LOS weave: C
Comp LOS: F

V = 4,275 pcph V_w = 689 pcph
L = 910 ft R = 0.46
W_1 = 375 pcph
W_2 = 314 pcph



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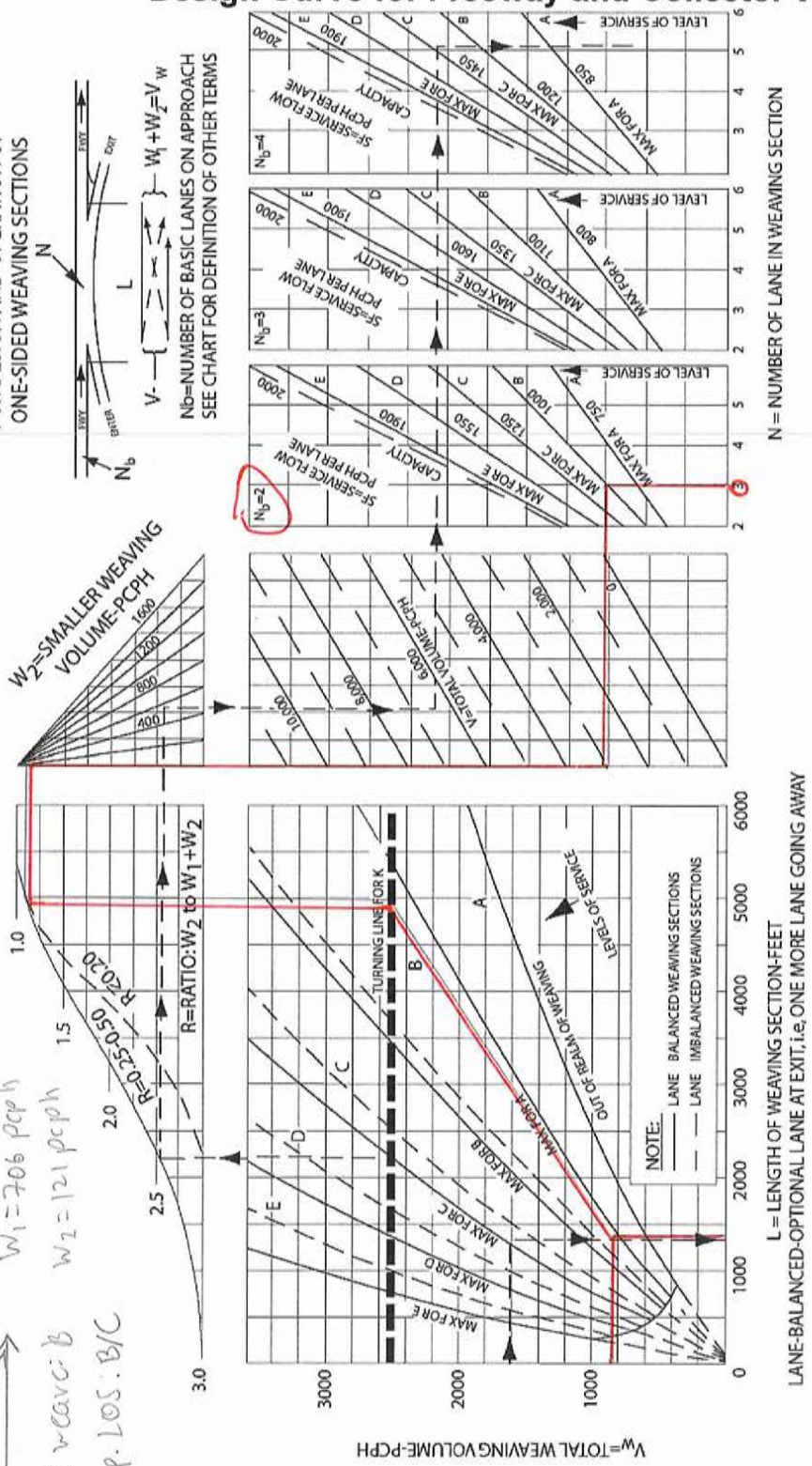

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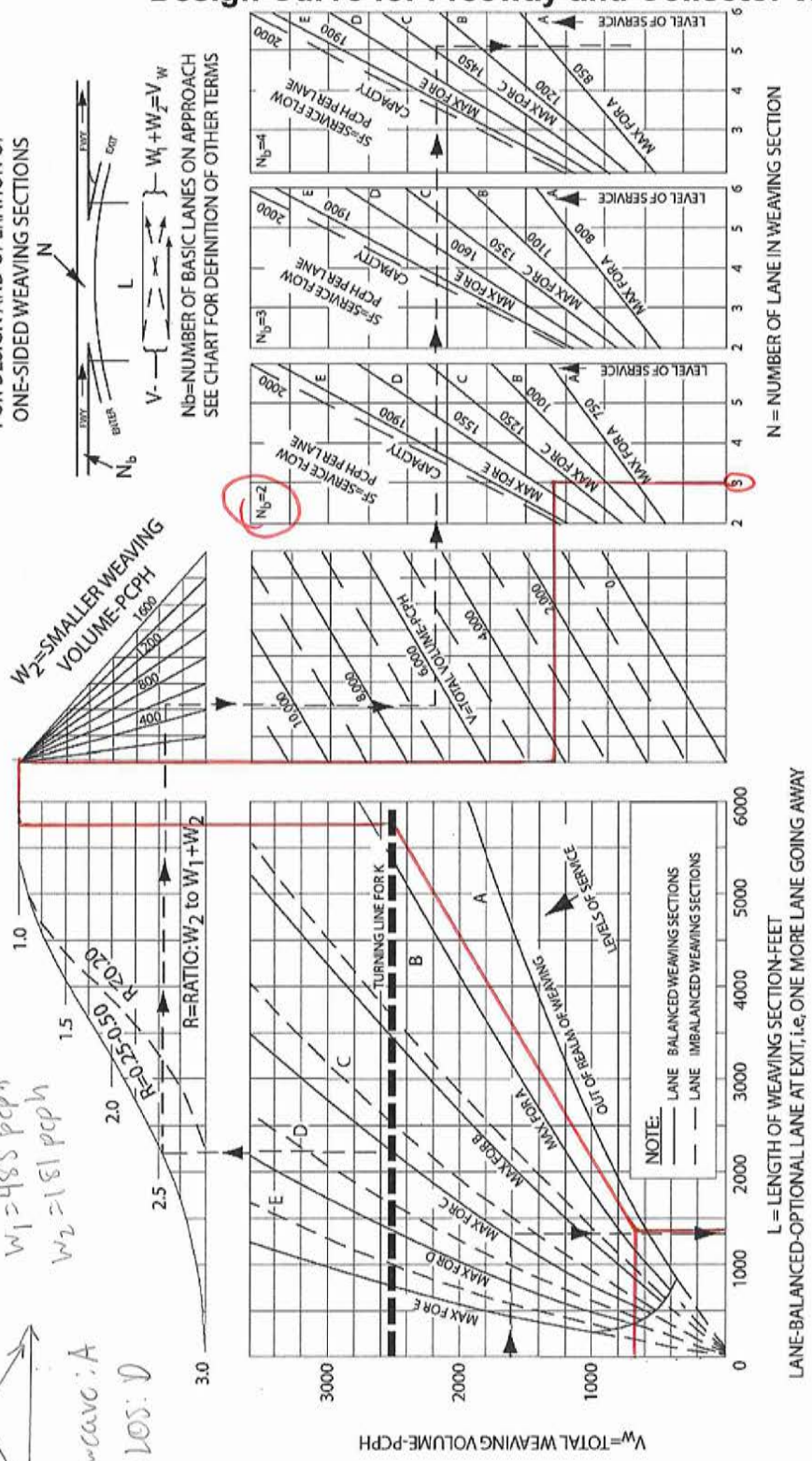

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Cumulative + Project: PM
Direction: SB
On ramp: Prado
Off ramp: LOVR
V_w = 666 pcph
R = 0.27
V = 4252 pcph
L = 1330 ft
W_1 = 485 pcph
W_2 = 181 pcph
LOS weave: A
Comp. LOS: D
3,586
485
181

Appendix F – VMT Calculation Sheets

VMT+

VMT Generation 46,894 GHG Generation 19.4

Presented by FEHR PEERS as part of our ASAP PLATFORM

1. Land Use | 2. Internalization | 3. Retail Pass-by | 4. VMT Calculation | 5. GHG Calculation | 6. Diagram of VMT

Begin by entering the geographic area where your project is located. Enter in either land use quantities (number of dwelling units or 1,000 square feet of non-residential uses) or daily trip generation for residential, retail, office, industrial, school, or other uses. Land use quantities are converted to daily trips using Institute of Transportation Engineers Trip Generation, 8th Edition data. Users can specify the average, linear, or logarithmic trip generation rate. The user can also manually enter daily trip generation for the different categories if the standard ITE categories are not applicable.

Select Geographic Area San Francisco - Oakland - San Jose

Land Use Type	Units	Method	Daily Trips
Number of Dwelling Units			
Single Family (ITE 210)		Average Rate	
Multi-Family (ITE 220)	174	Average Rate	1169.28
High Rise Condo (ITE 232)		Average Rate	
Other Residential			
Retail Floor Space (ksf)			
General Retail other than those listed below (ITE 820)	30	Average Rate	1287.60
Supermarket (ITE 850)		Average Rate	
Bank (ITE 912)		Average Rate	
Health Club (ITE 492)		Average Rate	
Restaurant (non-fast food - ITE 932)		Average Rate	
Fast-Food Restaurant (ITE 934)		Average Rate	
Gas Station (ITE 945)		Average Rate	
Auto Repair (ITE 942)		Average Rate	
Other Retail			
Office Floor Space (ksf)			
Non-Medical (ITE 710)		Average Rate	
Medical (ITE 720)		Average Rate	
Other Office			
Industrial Floor Space (ksf)			
Light Industrial (ITE 110)		Average Rate	
Manufacturing (ITE 140)		Average Rate	
Warehousing (ITE 150)		Average Rate	
Other Industrial			
Hotel rooms (ITE 310)	120	Average Rate	980.40
Movie Screens (ITE 445)		Average Rate	

School Enrollment

Grade School (ITE 520)		Average Rate ▾	
High School (ITE 530)		Average Rate ▾	
College (ITE 550)		Average Rate ▾	
Misc Floor Space (ksf) not covered above			1749

Total ITE Trips Generated	5186.28
Total HH Trips Generated	1169.28
Total Retail Trips Generated	1287.60
Total Office Trips Generated	0.00
Total Industrial Trips Generated	0.00
Total School Trips Generated	0.00
Total Other Trips Generated	2729.40

VMT+

VMT Generation 46,894 GHG Generation 19.4

Presented by FEHR & PEERS as part of our ASAP PLATFORM

1. Land Use | 2. Internalization | 3. Retail Pass-by | 4. VMT Calculation | 5. GHG Calculation | 6. Diagram of VMT

This section reduces the total gross trip generation from the previous section by accoiunting for internal trips. Internal trips are the trips that remain within a mixed-use development that would otherwise drive off from the project site. For for simple or single use sites, the level of internalization is minimal and this step can be ignored. Accurate internal trip estimates will reduce the potential for over-estimating a project's VMT and GHG emissions. Some potential sources for internalization estimates can be obtained from a regional travel model, FHWA HPMS data, or using tools like Fehr & Peers 5D MXD Trip Generation Tool.

Trip Purpose	Internalization Percentage		Description
Home to work trips	20	%	This is the percentage of onsite residential work trips that go to jobs within the project. For small projects, this percentage will tend to be small. For large projects, this percentage can be fairly large.
Home to other (shopping, services, recreation) trips	20	%	This is the percentage of onsite residential non-work (shopping, dining, recreation) trips that remain within the project area.
Home to school trips	0	%	This is the percentage of school trips (student drop-off, student drivers) that remain onsite between project homes and schools. For large sites, many of the school trips could remain internal to the project area.
Trips between non-home uses	5	%	This is the percentage of non-home-based trips that remain onsite. Examples of non-home-based trips include trips from work to lunch, or trips between two retail uses. In this case, only trips between onsite retail and employment are considered.

Reasonableness Checks	Trips	Percentage
Total Home-to-Work Reduction	63.14	
Total Home-to-Other Reduction	156.45	
Total Home-to-School Reduction	0.00	
Total Non-Home Trip Reduction	18.61	
Total Overall Trip Internalization	238.20	5%

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VMT+

VMT Generation i 46,894 GHG Generation i 19.4

Presented by FEHR PEERS as part of our ASAP PLATFORM

1. Land Use | 2. Internalization | 3. Retail Pass-by | 4. VMT Calculation | 5. GHG Calculation | 6. Diagram of VMT

Enter/update the retail pass-by percentages. By default, pass-by rates are set to zero for all retail uses. If the project/plan is located on a busy street, the pass-by rate may be significant and should be adjusted to ensure an accurate VMT and GHG estimate. The Institute of Transportation Engineers Trip Generation Handbook one potential source for pass-by data.

Retail Pass-by Trip Adjustment	Daily Pass-by Percentage		Daily Pass-by Reduction	
General Retail other than those listed below (ITE 820)	34	%	369.71	
Supermarket (ITE 850)		%	0.00	
Bank (ITE 912)		%	0.00	
Health Club (ITE 492)		%	0.00	
Restaurant (non-fast food - ITE 932)		%	0.00	
Fast-Food Restaurant (ITE 934)		%	0.00	
Gas Station (ITE 945)		%	0.00	
Auto Repair (ITE 942)		%	0.00	
Other Retail		%	0.00	
Total Daily Retail Pass-by	33	%		369.71

Note: Ensure that adjacent streets can support the level of pass-by trips shown above.

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VMT+

VMT Generation 46,894 GHG Generation 19.4

Presented by FEHR PEERS as part of our ASAP PLATFORM

1. Land Use | 2. Internalization | 3. Retail Pass-by | 4. VMT Calculation | 5. GHG Calculation | 6. Diagram of VMT

Based on the results from the previous steps, VMT is calculated below. This step contains default values from the Puget Sound region for trip purpose splits and average trip length by trip purpose. Adjust the purpose splits and trip lengths as appropriate for a given project. It is important to estimate the average internal trip length (for internal project/plan vehicle trips) since this will vary significantly by project. Some reasonableness calculations are shown below the overall VMT calculation.

Select Geographic Area San Francisco - Oakland - San Jose

Inputs/Assumptions

Home-Based Trip Production Proportions by Trip Purpose

	Total Proportion	Proportion to/from Home End
Home-Based Work (HBW)	.21	0.270
Home-Based Other (HBO)	.52	0.669
Home-Based School (HBS)	.04	0.051
Non-Home Based (NHB)	.23	0.010
	1.00	1.000

Non-Home Trip Purpose Proportions

	Retail	Office	Industrial	School	Other
Home-Based Work (HBW)	.1	.33	.6	.16	.6
Home-Based Other (HBO)	.62	.29	.2	.56	.2
Non-Home Based (NHB)	.28	.38	.2	.28	.2
	1.00	1.00	1.00	1.00	1.00

Residential Weekday Daily Trip Ends

	Trip Ends	Internalization Reductions
Residential HBW	315.71	31.57
Residential HBO	782.25	78.23
Residential NHB attracted to home location	11.69	0.29
Residential NHB trips associated with residents of project that are generated elsewhere on network	668.48	

Non-residential Weekday Daily Trip Ends	Retail Trip Ends	Office Trip Ends	Industrial Trip Ends	School Trip Ends	Other Trip Ends	Internalization Reductions
HBW	189.83	0.00	0.00	0.00	1049.40	31.57
HBO	1176.94	0.00	0.00	0.00	349.80	78.23
NHB	531.52	0.00	0.00	0.00	349.80	18.61

(d) Note that these trip ends can be double counted for mixed use projects/plans if internalization rate is not properly calculated

Estimated Trip Lengths in miles	HBW	HBO	NHB
Internal to Internal (II)	.25	.25	.25
Internal to External (IX)	14.24	7.19	8.37
NHB (that occur elsewhere on the network)			8.37

Part A CALCULATION VMT from Internal Project Trips	Internal Residential	Internal Non Residential
HBW	7.89	7.89
HBO	19.56	19.56
NHB	0.07	4.65

Part B CALCULATION VMT from Internal-External Project Trips	IX - XI Residential	IX - XI Non Residential
HBW	4046.15	17197.08
HBO	5061.90	10414.79
NHB	2893.01	7220.88

Summary

Total VMT Generation 46,894

Reasonableness Checks

Calculated Residential VMT per Household =	69.13	
Residential VMT per Household from relevant resource =		
Internalization percentage =	5.00	
Internalization from relevant resource =		
Average trip length for all trips =	9.00	
Average trip length (mi.) from relevant resource =	8.86	

VMT+

VMT Generation 46,894 GHG Generation 19.4

Presented by FEHR PEERS as part of our ASAP PLATFORM

1. Land Use | 2. Internalization | 3. Retail Pass-by | 4. VMT Calculation | 5. GHG Calculation | 6. Diagram of VMT

This step calculates GHG based on the overall VMT result from the previous steps. The GHG emissions are based on an emissions factor from the US Environmental Protection Agency and 2006 passenger car/light truck average fuel economy data from the Bureau of Transportation Statistics. Update this emissions factor with a more locally-valid factor that considers local driving behavior and fleet mix, if such a factor is available. The US EPA MOVES air quality model is a potential source for more localized emissions factors.

Overall VMT Calculation 46,894

Carbon dioxide emissions factor per gallon of gasoline consumed = 8.8 kilograms

Adjustment factor to account for other greenhouse gasses = 1.0526316

Combined average fuel economy of cars and light trucks = 22.4 miles per gallon

GHG emissions per average weekday from project/plan = 19.4 metric tons of carbon dioxide equivalent per day

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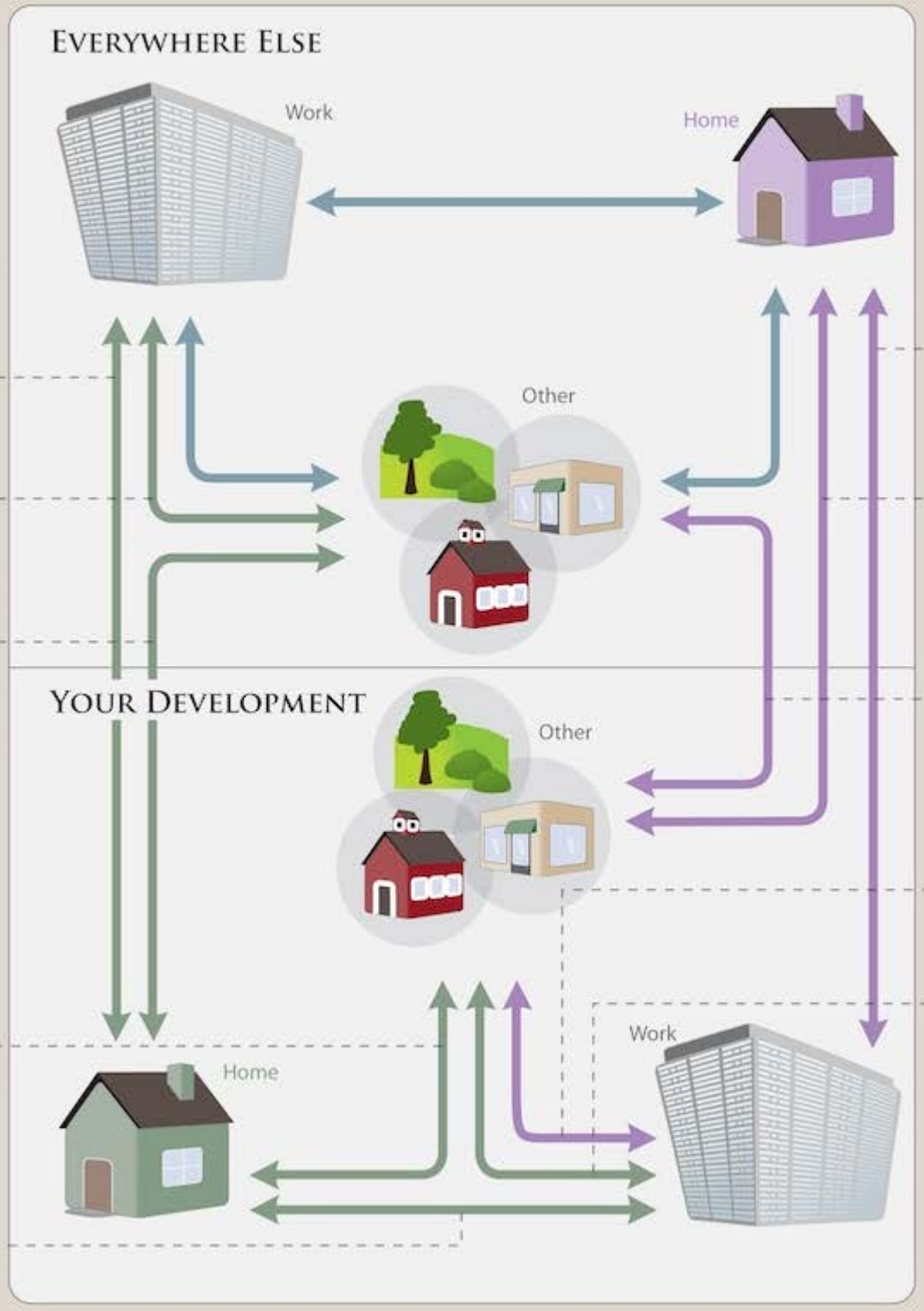
Total VMT
46,894

VMT per HH
69.13



IX-XI HBW Trips
284

IX-XI HBW VMT
4,046

NHB VMT [1]
669

NHB Trips [1]
2,798

IX-XI HBO Trips
704

IX-XI HBO VMT
5,062

Internal HBO Trips
157

Internal HBO VMT
39

HBO Trip Internalization
18.2%

Internal HBW Trips
63

Internal HBW VMT
16

HBW Trip Internalization
18.2%

IX-XI non-Res HBW Trips
1,208

IX-XI non-Res HBW VMT
17,197

IX-XI non-Res HBO Trips
1,449

IX-XI non-Res HBO VMT
10,415

IX-XI non-Res NHB Trips
863

IX-XI non-Res NHB VMT
7,221

Internal non-Res NHB Trips
19

Internal non-Res NHB VMT
5

Internal Residential NHB Trips [1]
0

Internal Residential NHB VMT [1]
0

NHB Internalization
0.0%