CANYON RANCH TRAFFIC IMPACT ANALYSIS

City of Loma Linda

March 22, 2022

gandhi

Traffic Engineering • Transportation Planning • Parking • Noise & Vibration
Air Quality • Global Climate Change • Health Risk Assessment

CANYON RANCH
TRAFFIC IMPACT ANALYSIS

City of Loma Linda

March 22, 2022

prepared by

Perrie Ilercil, P.E. (AZ)
Giancarlo Ganddini, PE, PTP

GANDDINI GROUP, INC.
555 Parkcenter Drive, Suite 225
Santa Ana, California 92705
(714) 795-3100 | ganddini.com

Project No. 19409

TABLE OF CONTENTS

EXECUTIVE SUMMARY IV

1. INTRODUCTION 1

Project Description 1
Study Area 1
Analysis Scenarios 2

2. METHODOLOGY 7

Level of Service/Operational Analysis Methodology (Non-CEQA) 7
Intersection Delay Methodology 7
Performance standards 8
Vehicle Miles Traveled Analytical Methodology (CEQA) 8

3. EXISTING CONDITIONS 9

Existing Roadway System 9
Pedestrian Facilities 9
Transit Facilities 9
General Plan Context 10
City of Loma Linda 10
City of Redlands 10
Bicycle Facilities and Pedestrian Trails 10
City of Loma Linda 10
City of Redlands 10
Existing Roadway Volumes 10
Existing Intersection Level of Service 11

4. PROJECT TRIP FORECASTS 25

Project Trip Generation 25
Project Trip Distribution & Assignment 25

5. FUTURE VOLUME FORECASTS 33

Method of Projection 33
Ambient Growth 33
Other Developments 33
Model General Buildout Growth 33
Analysis Scenario Volumes 34
Existing Plus Project 34
Opening Year (2024) Without Project 34
Opening Year (2024) With Project 34
Year 2040 Without Project 34
Year 2040 With Project 34

6. FUTURE LEVELS OF SERVICE ANALYSIS 57

Existing Plus Project 57
Opening Year (2024) Without Project 57
Opening Year (2024) With Project 57
Year 2040 Without Project 57
Year 2040 With Project 57
Traffic Signal Warrant Analysis 58

7. SITE ACCESS & ON-SITE CIRCULATION 64
Project Design Features 64
Site Access Queuing Analysis 64
8. MITIGATION MEASURES 67
Summary of Improvements 67
Fair Share Analysis 67
Development Impact Fee 67
Construction Traffic Control Measures 68
9. CONCLUSIONS 70
Project Trip Generation 70
Level of Service Analysis 70
Site Access Queuing Analysis 70
Mitigation Measures 71

APPENDICES

Appendix A Glossary
Appendix B Scoping Agreement
Appendix C Intersection Count Worksheets
Appendix D Existing Volume Adjustment Factor Calculations
Appendix E Travel Demand Model Plots
Appendix F Post Processing Worksheets
Appendix G Intersection Level of Service Worksheets
Appendix H Traffic Signal Warrant Worksheets

LIST OF TABLES

Table 1. Existing Intersection Levels of Service 12
Table 2. Annexation Trip Generation 26
Table 3. Project Trip Generation 27
Table 4. Other Development Trip Generation 35
Table 5. Existing Plus Project Intersection Levels of Service 59
Table 6. Opening Year (2024) Without Project Intersection Levels of Service 60
Table 7. Opening Year (2024) With Project Intersection Levels of Service 61
Table 8. Year 2040 Without Project Intersection Levels of Service 62
Table 9. Year 2040 With Project Intersection Level of Service Operations Assessment 63
Table 10. Project Queueing Storage Analysis 66
Table 11. Fair Share Analysis 69

LIST OF FIGURES

Figure 1. Regional Location Map 3
Figure 2. Annexation Area Map 4
Figure 3. Project Location Map 5

Figure 4. Site Plan 6
Figure 5. Existing Lane Geometry and Intersection Traffic Controls 13
Figure 6. Existing Pedestrian Facilities 14
Figure 7. Existing Transit Routes 15
Figure 8. City of Loma Linda General Plan Circulation Element 16
Figure 9. City of Loma Linda General Plan Roadway Cross-Sections 17
Figure 10. City of Redlands General Plan Circulation Element 18
Figure 11. City of Redlands General Plan Roadway Cross-Sections 19
Figure 12. City of Loma Linda Bicycle Facilities and Pedestrian Trails Master Plan 20
Figure 13. City of Redlands Bicycle Facilities and Pedestrian Trails Master Plan 21
Figure 14. Existing Average Daily Traffic Volumes 22
Figure 15. Existing AM Peak Hour Intersection Turning Movement Volumes 23
Figure 16. Existing PM Peak Hour Intersection Turning Movement Volumes 24
Figure 17. Project Trip Distribution (Outbound) 28
Figure 18. Project Trip Distribution (Inbound) 29
Figure 19. Project Average Daily Traffic Volumes 30
Figure 20. Project AM Peak Hour Intersection Turning Movement Volumes 31
Figure 21. Project PM Peak Hour Intersection Turning Movement Volumes 32
Figure 22. Other Development Location Map 38
Figure 23. Other Development Average Daily Traffic Volumes 39
Figure 24. Other Development AM Peak Hour Intersection Turning Movement Volumes 40
Figure 25. Other Development PM Peak Hour Intersection Turning Movement Volumes 41
Figure 26. Existing Plus Project Average Daily Traffic Volumes 42
Figure 27. Existing Plus Project AM Peak Hour Intersection Turning Movement Volumes 43
Figure 28. Existing Plus Project PM Peak Hour Intersection Turning Movement Volumes 44
Figure 29. Opening Year (2024) Without Project Average Daily Traffic Volumes 45
Figure 30. Opening Year (2024) Without Project AM Peak Hour Intersection Turning Movement Volumes 46
Figure 31. Opening Year (2024) Without Project PM Peak Hour Intersection Turning Movement Volumes 47
Figure 32. Opening Year (2024) With Project Average Daily Traffic Volumes 48
Figure 33. Opening Year (2024) With Project AM Peak Hour Intersection Turning Movement Volumes 49
Figure 34. Opening Year (2024) With Project PM Peak Hour Intersection Turning Movement Volumes 50
Figure 35. Year 2040 Without Project Average Daily Traffic Volumes 51
Figure 36. Year 2040 Without Project AM Peak Hour Intersection Turning Movement Volumes 52
Figure 37. Year 2040 Without Project PM Peak Hour Intersection Turning Movement Volumes 53
Figure 38. Year 2040 With Project Average Daily Traffic Volumes 54
Figure 39. Year 2040 With Project AM Peak Hour Intersection Turning Movement Volumes 55
Figure 40. Year 2040 With Project PM Peak Hour Intersection Turning Movement Volumes 56
Figure 41. Recommended Lane Geometry and Intersection Traffic Controls 72

EXECUTIVE SUMMARY

The purpose of this study is to evaluate the potential for transportation impacts resulting from development of the proposed project in the context of the City of Loma Linda's discretionary authority for conformance with locally established operational standards. Although this is a technical report, effort has been made to write the report clearly and concisely. A glossary is provided in Appendix A to assist the reader with technical terms.

This study was prepared in consultation with City of Loma Linda staff and in accordance with the procedures and methodologies for assessing transportation impacts established by the City of Loma Linda. To assess the project's conformance with local operational standards, this study evaluates the project's effect on traffic operations and, if necessary, identifies recommended improvements or corrective measures to alleviate operational deficiencies substantially caused or worsened by the proposed project. For compliance with California Environmental Quality Act (CEQA) requirements, a vehicle miles traveled (VMT) assessment for the project is provided in a separate document (see *Canyon Ranch Vehicle Miles Traveled Assessment*, Ganddini Group, Inc., January 19, 2022).

Project Description

Annexation Area

The approximately 141.4-acre proposed annex area is generally located south of Barton Road, west of San Timoteo Canyon Road/Nevada Street, and northeast of the Union Pacific Railroad line in the City of Loma Linda sphere of influence (currently unincorporated). The annexation includes a General Plan Amendment and Zoning Map Amendment to change four lots from the current designation and zone of General Commercial to Low Density Residential. The two tentative tract maps (TTM) and adjacent lots found within this portion of the sphere of influence will be annexed into the City.

Residential Projects TTM-20403 and TTM-20404

The approximately 66.7-acre proposed residential project site is located within the annexation area, north and south of Bermudez Street between San Timoteo Creek and San Timoteo Canyon Road in the City of Loma Linda, California. The project site is currently undeveloped and zoned for Low Density and Very Low Density Residential. The proposed residential project involves construction of two tentative tract maps consisting of 126 residential lots and 3 lettered lots [Project]. TTM-20403 consists of 37 lots (7,200 square feet minimum), a basin, and open space. TTM-20404 consists of 89 lots (2 units per acre density) and open area.

Vehicular access for the project site will be maintained at Barton Road, New Jersey Street, San Timoteo Road and Nevada Street. Additionally, the proposed project will vacate the Bermudez Street and San Timoteo Canyon Road intersection and construct a new cul-de-sac on the northern side of parcel 0293-091-04 with a 30-foot access driveway for the adjacent parcel on the east.

Project Trip Generation

Annexation Area

The proposed annex area is forecast to generate approximately 4,429 daily trips, including 382 trips during the AM peak hour and 1,136 trips during the PM peak hour. The proposed annexation/zone change is forecast to result in a net of 1,189 more daily trips, including 87 more trips during the AM peak hour and 118 more trips during the PM peak hour.

Residential Projects TTM-20403 and TTM-20404

The proposed project is forecast to generate approximately 1,188 daily trips, including 88 during the AM peak hour and 119 trips during the PM peak hour.

Level of Service Analysis

The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Existing, Existing Plus Project, Opening Year (2024) Without Project and Opening Year (2024) With Project conditions. Therefore, the proposed project is forecast to result in no project-related Level of Service deficiencies at the study intersections for the Existing Plus Project scenario.

The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Year 2040 Without Project conditions, with the exception of the following study intersection that is forecast to operate at Levels of Service D or worse during peak hours:

5. Nevada Street (NS) at San Timoteo Canyon Road (EW) (D-AM / E-PM peak hour)

The proposed project is forecast to result in project related traffic deficiency at one (1) study intersection for Opening Year (2024) Without Project conditions without improvement based on the city-established thresholds.

The installation of a traffic signal is recommended at the Nevada Street and San Timoteo Canyon Road intersection. The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours with improvements.

The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Year 2040 With Project conditions, with the exception of the following study intersection that is forecast to operate at Levels of Service D or worse during peak hours:

5. Nevada Street (NS) at San Timoteo Canyon Road (EW) (D-AM / E-PM peak hour)

The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours with the previously listed improvements.

Site Access Queuing Analysis

The traffic volumes for project site access locations are forecast to operate within the available storage length during the peak hours for the evaluated scenarios conditions. Therefore, the proposed project is forecast to result in no project-related Level of Service deficiencies at the study intersections for evaluated scenarios.

Mitigation Measures

The following improvement is required for Year 2040 Without and With Project conditions to maintain an acceptable Level of Service at the study intersection:

5. Nevada Street (NS) at San Timoteo Canyon Road (EW)
   - Install a traffic signal.
   - Construct one southbound left turn lane.
   - Construct one westbound right turn lane.

Improvements at the project driveways are project design features which shall be constructed by the project. Site-adjacent improvements shall be constructed in conjunction with the project.

The project shall pay the appropriate transportation Development Impact Fee(s) as required by the City, as well as any fair share cost included in the report.

1. INTRODUCTION

This section introduces the proposed project and the general scope of the analysis.

PROJECT DESCRIPTION

Annexation Area

The approximately 141.4-acre proposed annex area is generally located south of Barton Road, west of San Timoteo Canyon Road/Nevada Street, and northeast of the Union Pacific Railroad line in the City of Loma Linda sphere of influence (currently unincorporated). The annexation includes a General Plan Amendment and Zoning Map Amendment to change four lots from the current designation and zone of General Commercial to Low Density Residential. The two tentative tract maps (TTM) and adjacent lots found within this portion of the sphere of influence will be annexed into the City. Figure 1 and Figure 2 show the regional location map and annexation area map.

Residential Projects TTM-20403 and TTM-20404

The approximately 66.7-acre proposed residential project site is located within the annexation area, north and south of Bermudez Street between San Timoteo Creek and San Timoteo Canyon Road in the City of Loma Linda, California. The project site is currently undeveloped and zoned for Low Density and Very Low Density Residential. The proposed residential project involves construction of two tentative tract maps consisting of 126 residential lots and 3 lettered lots [Project]. TTM-20403 consists of 37 lots (7,200 square feet minimum), a basin, and open space TTM-20404 consists of 89 lots (2 units per acre density) and open area. Figure 3 and Figure 4 illustrates the project location map and project site plan.

Vehicular access for the project site will be maintained at Barton Road, New Jersey Street, San Timoteo Road and Nevada Street. Additionally, the proposed project will vacate the Bermudez Street and San Timoteo Canyon Road intersection and construct a new cul-de-sac on the northern side of parcel 0293-091-04 with a 30-foot access driveway for the adjacent parcel on the east.

STUDY AREA

Based on the study intersections identified in the approved scoping agreement (Appendix B), the study area consists of the following study intersections within the City of Loma Linda and City of Redlands:

Study Intersections[1]	Jurisdiction
1. California Street (NS) at Barton Road (EW)	Loma Linda
2. New Jersey Street (NS) at Barton Road (EW)	Loma Linda
3. New Jersey Street (NS) at Bermudez Street (EW)	Loma Linda
4. San Timoteo Canyon Road (NS) at Barton Road (EW)	Loma Linda/Redlands
5. Nevada Street (NS) at San Timoteo Canyon Road (EW)	Loma Linda/Redlands
6. Nevada Street (NS) at Beaumont Avenue (EW)	Loma Linda/Redlands
7. Project Access (F) (NS) at Bermudez Street (EW)	Loma Linda
8. San Timoteo Canyon Road (NS) at Project Access (G) (EW)	Loma Linda/Redlands
9. Nevada Street (NS) at Project Access (B) (EW)	Loma Linda

[1] NS = north-south roadway; EW – east-west roadway.

ANALYSIS SCENARIOS

The traffic study shall evaluate the following analysis scenarios for typical weekday AM and PM peak hour conditions:

- Existing
- Existing Plus Project
- Opening Year (2024) Without Project
- Opening Year (2024) With Project
- General Plan Buildout (Year 2040) Without Project Conditions
- General Plan Buildout (Year 2040) With Project Conditions

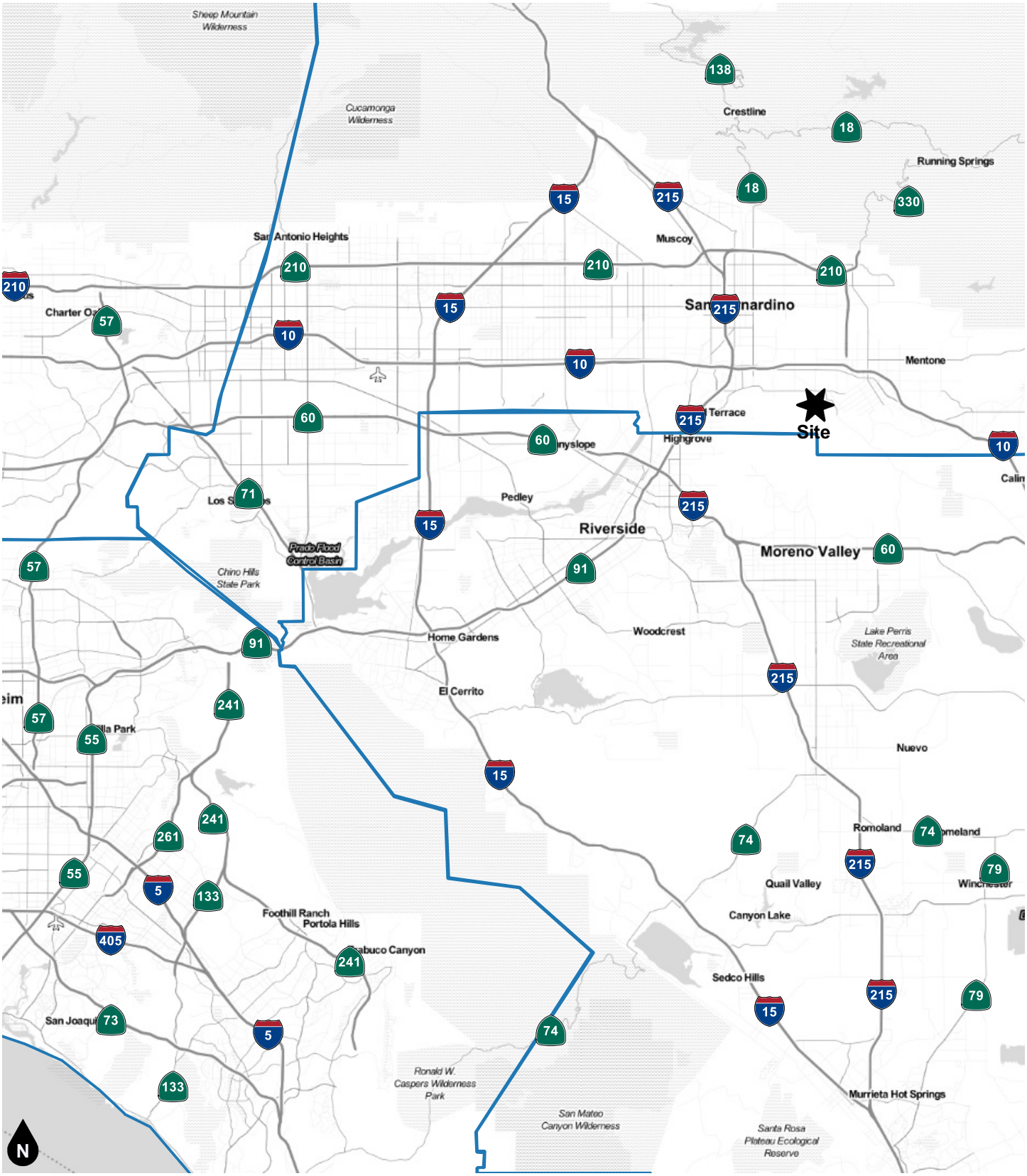


Figure 1
Regional Location Map

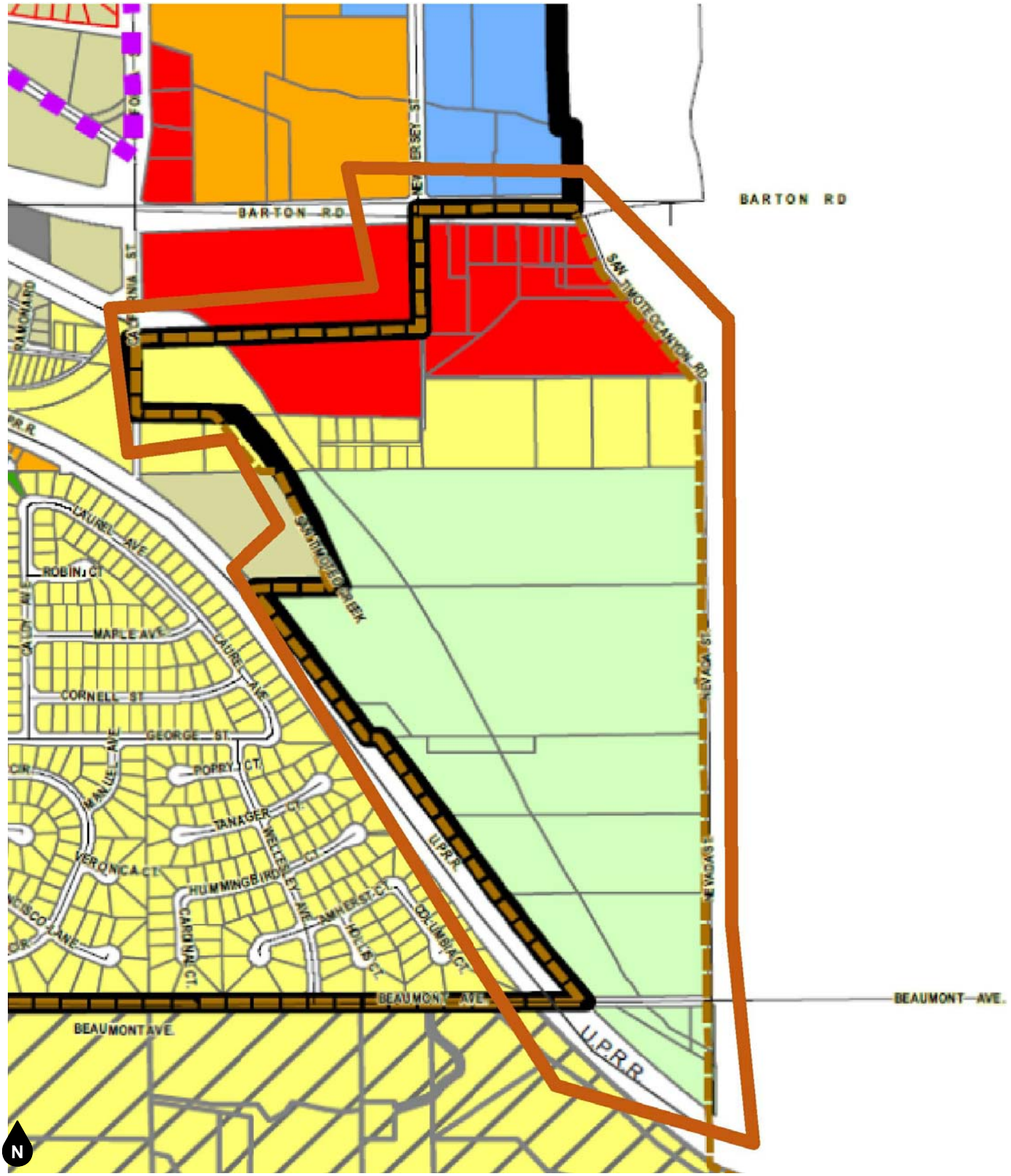
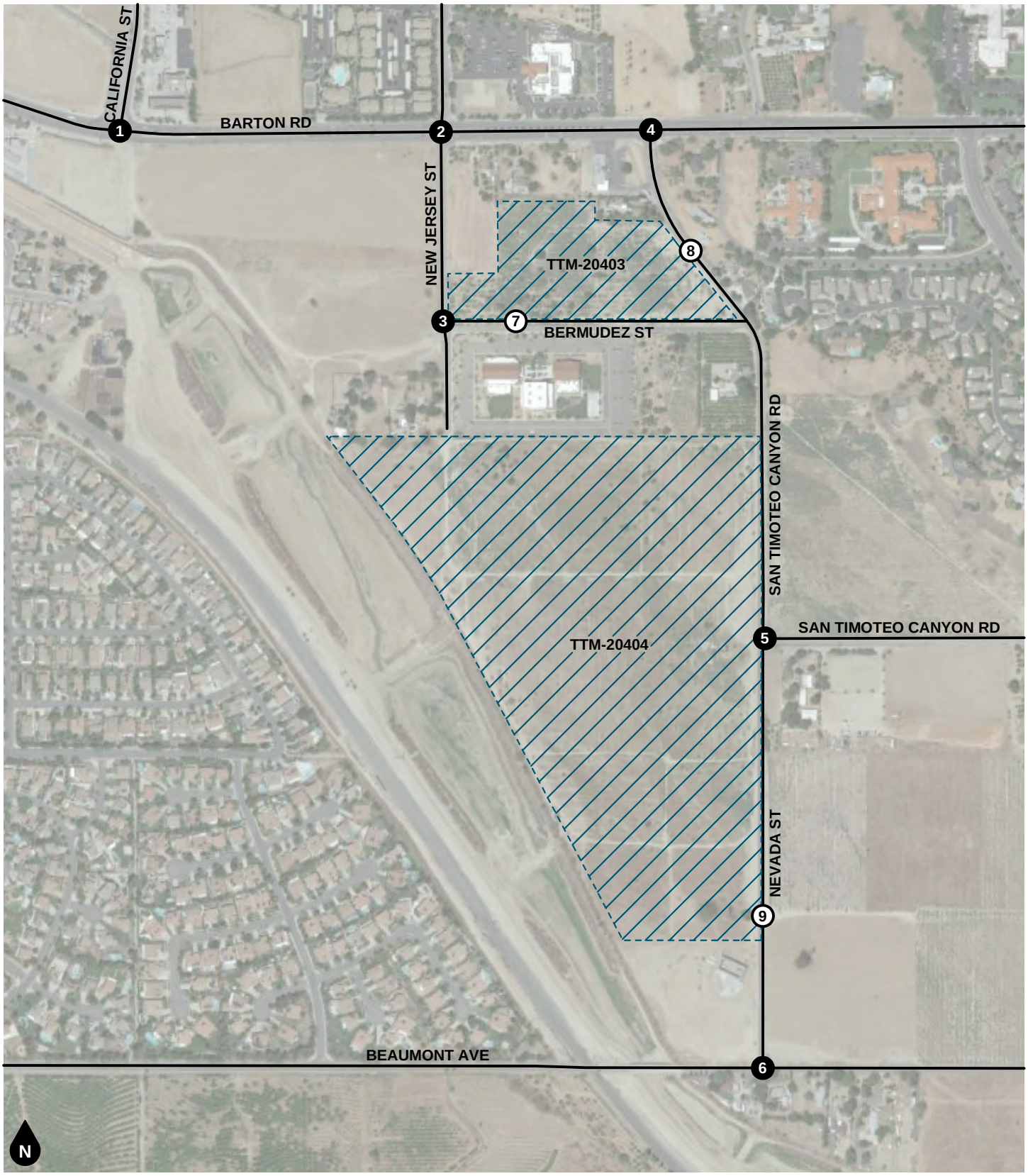


Figure 2
Annexation Area Map



Legend

Study Intersection

Project Driveway

Figure 3
Project Location Map

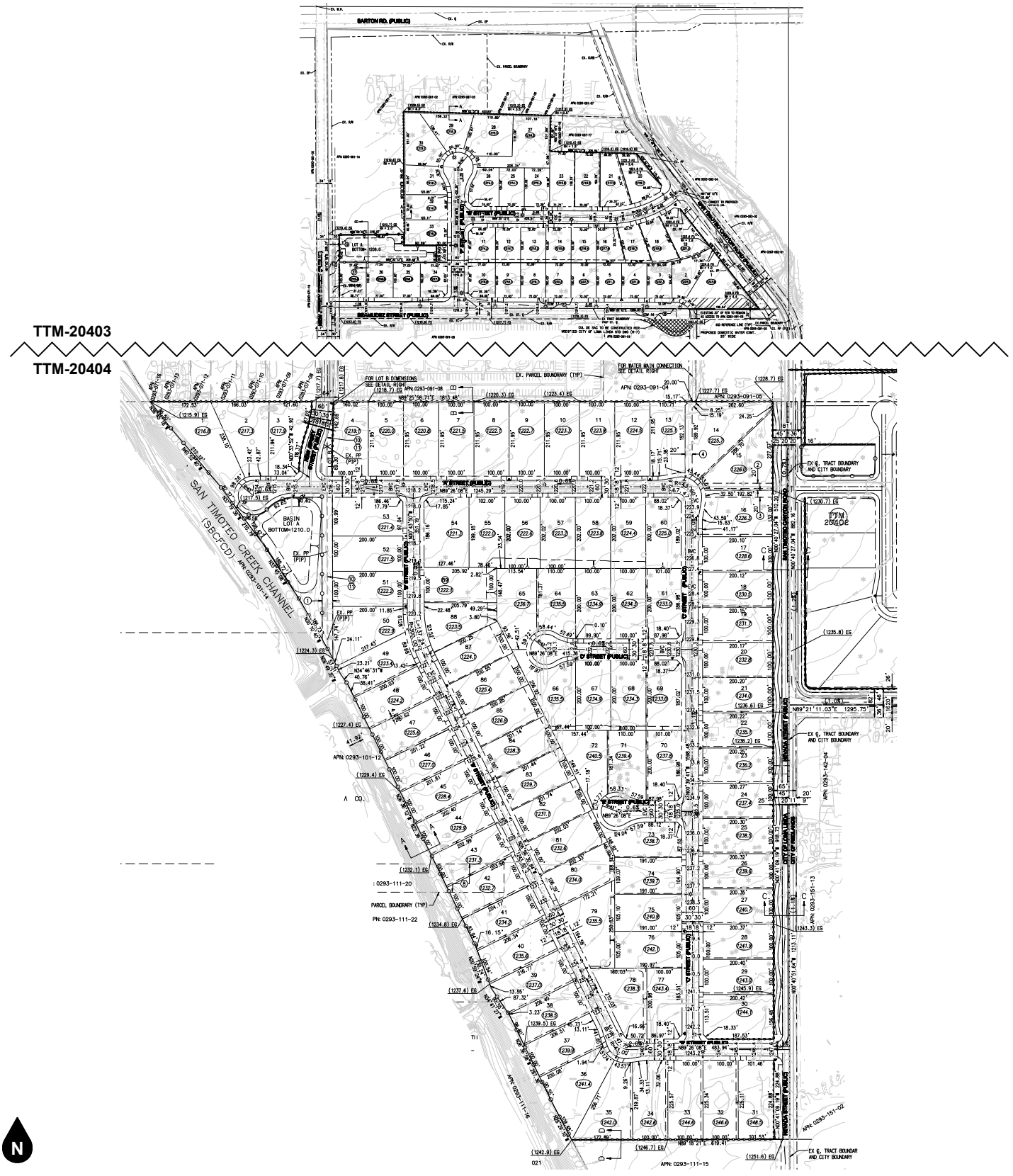


Figure 4
Site Plan

2. METHODOLOGY

This section discusses the analysis methodologies used to assess transportation facility performance as adopted by the respective jurisdictional agencies. This traffic impact analysis is based on by standard City of Loma Linda procedures, and the County of San Bernardino *Transportation Impact Study Guidelines*, *July 2019*; ["County Guidelines"]

LEVEL OF SERVICE/OPERATIONAL ANALYSIS METHODOLOGY (NON-CEQA)

Level of Service analysis is performed for assessing conformance with General Plan and operational standards established by the applicable agencies. In accordance with current CEQA provisions, a project's effect on automobile delay (as measured by Level of Service) shall not constitute a significant environmental impact.

Intersection Delay Methodology

Unsignalized intersections within the City of Loma Linda and Caltrans jurisdiction are analyzed using the intersection delay methodology based on procedures contained in the *Highway Capacity Manual* (Transportation Research Board, 6th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding Level of Service. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection control delay is then correlated to Level of Service based on the following thresholds:

Level of Service	Intersection Control Delay (Seconds / Vehicle)	
	Signalized Intersection	Unsignalized Intersection
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Transportation Research Board *Highway Capacity Manual* (6th Edition).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). At intersections with traffic signal or all way stop control, Level of Service is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), Level of Service is determined by the average control delay for the worst minor street approach or major street left-turn movement. Intersection delay analysis was performed using the Vistro software with default capacity values and adjustment factors recommended in the *Highway Capacity Manual*.

The Level of Service analysis for signalized intersections has been performed using optimized signal timing. This analysis has included an assumed lost time of two seconds per phase. Traffic signal timing optimization has considered pedestrian safety and signal coordination requirements. Appropriate time for pedestrian crossings has also been considered in the signalized intersection analysis. The following formula has been used to calculate the pedestrian minimum times for all Highway Capacity Manual runs:

(Curb to curb distance) / (3.5 feet/second) + 7 seconds.

Saturation flow rates of 1,800 vehicles per hour of green for through and right turn lanes and 1,700 vehicles per lane for single left turn lanes, 1,600 vehicles per lane for dual left turn lanes, and 1,500 vehicles per lane for triple left turn lanes have been assumed for the capacity analysis.

The peak hour intersection turning movement volumes have been adjusted to peak 15-minute volumes for analysis purposes using the existing observed peak 15 minute to peak hour factors for all scenarios analyzed. Where feasible improvements in accordance with the local jurisdiction's General Plan and which result in acceptable operations cannot be identified, the General Plan Buildout (Year 2040) peak hour factor has been adjusted upwards to 0.95. This is to account for the effects of congestion on peak spreading. Peak spreading refers to the tendency of traffic volumes to spread more evenly across time as congestion increases.

If the paved lane width of a shared through/right turn lane is wide enough to permit a separate right turn, it is common practice for a right turn lane to be considered "de facto". To function as a de facto right turn lane there must be sufficient width for right turning vehicles to travel outside the through lane. This analysis uses a minimum lane width of 19 feet from curb to lane stripe, but in most cases the lane was 20 feet or greater. Additionally, a de facto right turn lane was only considered where on-street parking is prohibited near the intersection approach.

PERFORMANCE STANDARDS

The definition of an intersection deficiency has been obtained from the City of Loma Linda General Plan. The General Plan Policy T-6.10.1, seeks to maintain Level of Service (C or better) for peak hour intersection operations.

In any location where the Level of Service (LOS) is Level of Service (D or worse) at the time an application for a development project is submitted, roadway improvement measures shall be imposed on that development project to assure, at a minimum, that the level of traffic service is maintained at Levels of Service that are no worse than those existing at the time an application for development is filed.

A traffic impact is considered a project-related impact if the project both: i) contributes measurable traffic to and ii) substantially and adversely changes the Level of Service at any off-site location projected to experience deficient operations under foreseeable cumulative conditions, where feasible improvements consistent with the City of Loma Linda General Plan cannot be constructed.

The City of Redlands General Plan and Measure U Section 1A.60 Principle Six has established the minimum acceptable Level of Service (C or better) for roadway segment and peak hour intersection operations. Where the current operation is Level of Service (D or worse), roadway improvements shall be provided such that the LOS is not reduced below the LOS at the time of the application, or as provided in Section 5.20 of the Redlands General Plan where a more intense Level of Service is specifically permitted, for Existing Plus Project conditions.

VEHICLE MILES TRAVELED ANALYTICAL METHODOLOGY (CEQA)

The metric used to evaluate the transportation impact of land use and transportation projects under CEQA is known as vehicle miles traveled (VMT). In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. Additional information and a detailed project assessment are provided in a separate Vehicle Miles Traveled Analysis Assessment Document.

3. EXISTING CONDITIONS

This section describes the existing transportation setting.

EXISTING ROADWAY SYSTEM

Figure 5 shows the lane geometry and intersection traffic controls for existing conditions based on a field survey of the study area. Regional access to the project site is provided by Interstate 10 approximately 1.7 miles to the north-west. Local north-south circulation is provided by Nevada Street, San Timoteo Canyon Road, New Jersey Street, and east-west circulation is provided by Barton Road.

San Timoteo Canyon Road: This two-lane undivided roadway trends in a northwest-southeast direction and is currently unclassified on the City of Loma Linda circulation system; however, it is classified as a four-lane divided Rural Arterial (56 feet roadway section and 72 feet of right-of-way) and designated truck route on the City of Redlands General Plan Circulation Element in the study area. Based on roadway width, on-street parking is generally prohibited on both sides of the roadway. There are currently no bike signs or marking on the roadway; however, the City's Bicycle Facilities and Pedestrian Trails Master Plan identifies San Timoteo Canyon Road as a proposed bike route. Sidewalks are currently not provided in the project vicinity.

New Jersey Street: This two-lane undivided roadway trends in a north-south direction and is unclassified on the City of Redlands General Plan Circulation Element in the study area. Based on roadway width, on-street parking is generally prohibited on both sides of the roadway. There are currently no bike signs or marking on the roadway. Sidewalks are currently not provided in the project vicinity.

Nevada Street: This two-lane undivided roadway trends in a north-south direction and is currently unclassified on the City of Loma Linda circulation system; however it is classified as a Collector (40 feet roadway section and 64 feet of right-of-way) on the City of Redlands General Plan Circulation Element south of San Timoteo Canyon Road intersection. Based on roadway width, on-street parking is generally prohibited on both sides of the roadway. There are currently no bike signs or marking on the roadway; however, the City's Bicycle Facilities and Pedestrian Trails Master Plan identifies Nevada Street as a proposed bike route. Sidewalks are currently not provided in the project vicinity.

Barton Road: This four-lane divided roadway trends in an east-west direction and is classified as a four-lane divided roadway on the City of Loma Linda General Plan Circulation Element and as a Major Arterial (80 feet roadway section and 110 feet of right-of-way) on the City of Redlands General Plan Circulation Element in the study area. On-street parking is prohibited on the south side of the roadway east of San Timoteo Canyon Road. There are currently bike signs or marking on the roadway consistent with the Class II bike route designation by the City. Sidewalks are currently not provided on the south side of the road in the project vicinity.

PEDESTRIAN FACILITIES

Existing pedestrian facilities in the project vicinity are shown on Figure 6. As shown on Figure 6, sidewalks are currently not provided along the project site frontage.

TRANSIT FACILITIES

Figure 7 shows the existing Omnitrans system map in the project vicinity. As shown on Figure 7, Local Route 19 runs along Barton Road with a bus stop located at the southeast corner of New Jersey Street and Barton Road.

GENERAL PLAN CONTEXT

City of Loma Linda

Figure 8 shows the City of Loma Linda General Plan Circulation Element roadway classifications map. This figure shows the nature and extent of arterial and collector highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The City of Loma Linda standard roadway cross-sections are illustrated on Figure 9.

City of Redlands

Figure 10 shows the City of Redlands General Plan Circulation Element roadway classifications map. This figure shows the nature and extent of arterial and collector highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The City of Redlands standard roadway cross-sections are illustrated on Figure 11.

BICYCLE FACILITIES AND PEDESTRIAN TRAILS

City of Loma Linda

The City of Loma Linda Bicycle Master Plan is shown Figure 12. This figure shows the bicycle facilities master plan. As shown on Figure 12, there is an existing Class II bike lane in an east-west direction along Barton Road.

City of Redlands

The City of Redlands Bicycle Master Plan is shown on Figure 13. This figure shows the bicycle facilities master plan. As shown on Figure 13, there is an existing Class II bike lane in an east-west direction along Barton Road and there is a proposed bike route in a north-south direction along San Timoteo Canyon Road and Nevada Street.

EXISTING ROADWAY VOLUMES

Figure 14 shows the existing (year 2021) average daily traffic volumes. The existing average daily traffic volumes have been factored from peak hour intersection turning movement volumes at locations using the following formula for each intersection leg:

PM Peak Hour (Approach Volume + Exit Volume) x 11.5= Leg Volume

Figure 15 and Figure 16 show the existing (year 2021) AM and PM peak hour intersection turning movement volumes. Existing peak hour intersection turning movement volumes are based upon AM peak period and PM peak period intersection turning movement counts obtained in November 2021 during typical weekday conditions. The weekday AM peak period was counted between 7:00 AM and 9:00 AM and the weekday PM peak period was counted between 4:00 PM and 6:00 PM; these periods generally capture the peak times for commuter traffic when the roadway system is typically experiencing peak demand. The actual peak hour within each two-hour count period is determined based on the sum of the four consecutive 15-minute periods with the highest total volume entering the intersection. Thus, the weekday PM peak hour at one intersection may be 4:45 PM to 5:45 PM and may vary at other intersections depending on the four consecutive 15-minute periods that have the highest total volume. Intersection turning movement count worksheets are provided in Appendix C.

To account for lingering effects of the COVID-19 pandemic on current traffic volumes, the peak hour intersection volumes collected in November 2021 were compared to historical traffic counts to assess whether adjustments were necessary to reflect non-pandemic conditions. Appendix D contains adjustment

factor calculations for comparing the new 2021 counts to non-pandemic estimates derived from January 2018 counts with application of annual growth to year 2021. As shown in Appendix D, the new 2021 counts were determined to be slightly lower than the pre-pandemic volumes with annual growth. To provide a conservative analysis, an adjustment factor of 1.0595 was applied to the traffic counts (5.95% increase).

EXISTING INTERSECTION LEVEL OF SERVICE

The study intersection Levels of Service for Existing (Year 2021) conditions are shown in Table 1. Detailed Level of Service worksheets are provided in Appendix G.

As shown in Table 1, the study intersections currently operate within acceptable Levels of Service (C or better).

Table 1
Existing Intersection Levels of Service

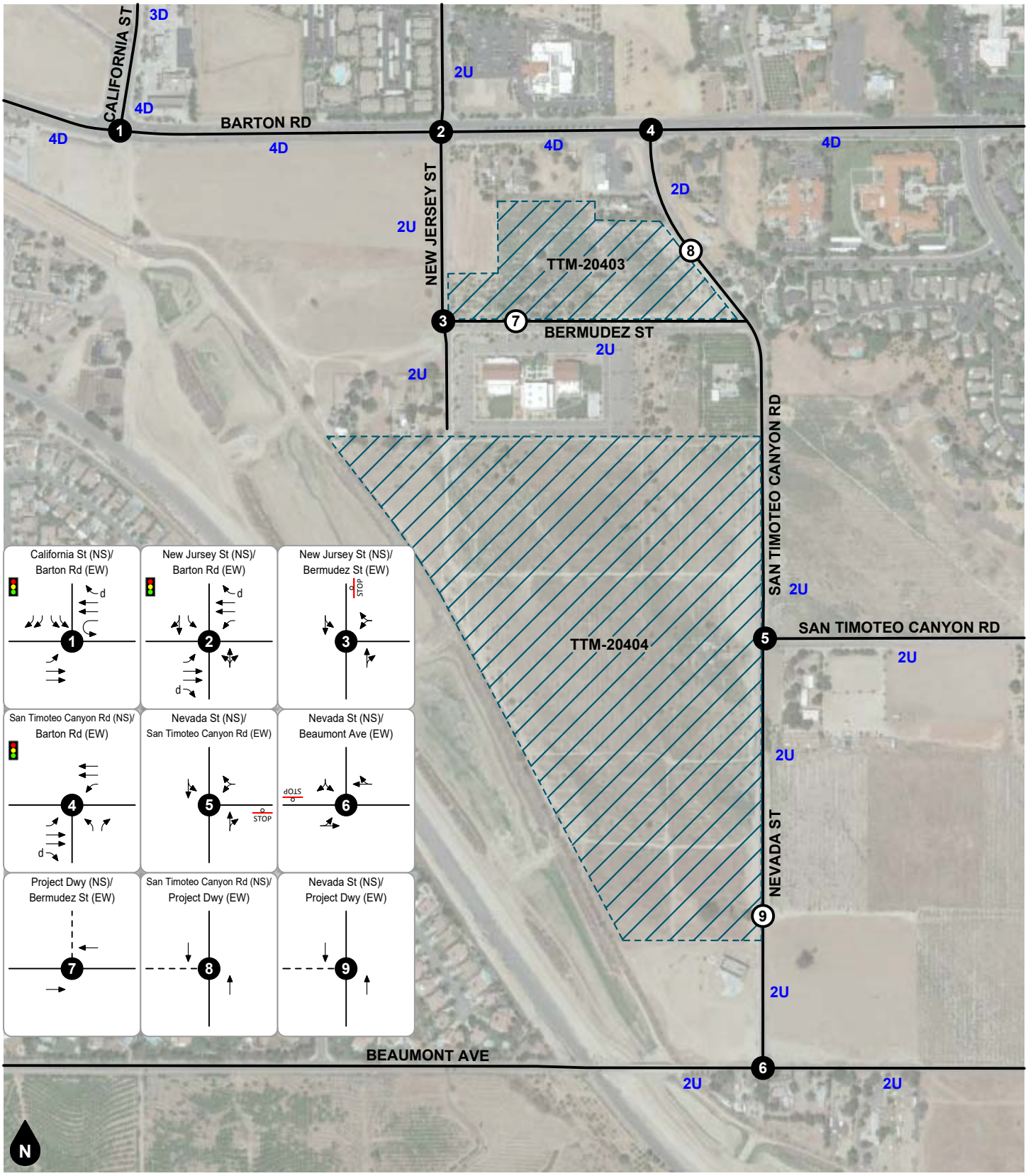
ID	Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS[3]
1.	California Street at Barton Road	TS	28.0	C	19.8	B
2.	New Jersey Street at Barton Road	TS	9.5	A	10.9	B
3.	New Jersey Street at Bermudez Street	CSS	8.3	A	8.3	A
4.	San Timoteo Canyon Rd at Barton Road	TS	13.5	B	20.0	B
5.	Nevada Street at San Timoteo Canyon Rd	CSS	17.1	C	17.3	C
6.	Nevada Street at Beaumont Avenue	CSS	10.6	B	9.4	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.

(3) LOS = Level of Service



Legend

- Traffic Signal
- Stop Sign
- #D #-Lane Divided Roadway
- #U #-Lane Undivided Roadway
- Existing Lane
- d De Facto Right Turn Lane
- Project Driveway

Figure 5
Existing Lane Geometry and Intersection Traffic Controls

Legend
- Sidewalk
- Cross Walk
- B Bus Stop

Figure 6
Existing Pedestrian Facilities

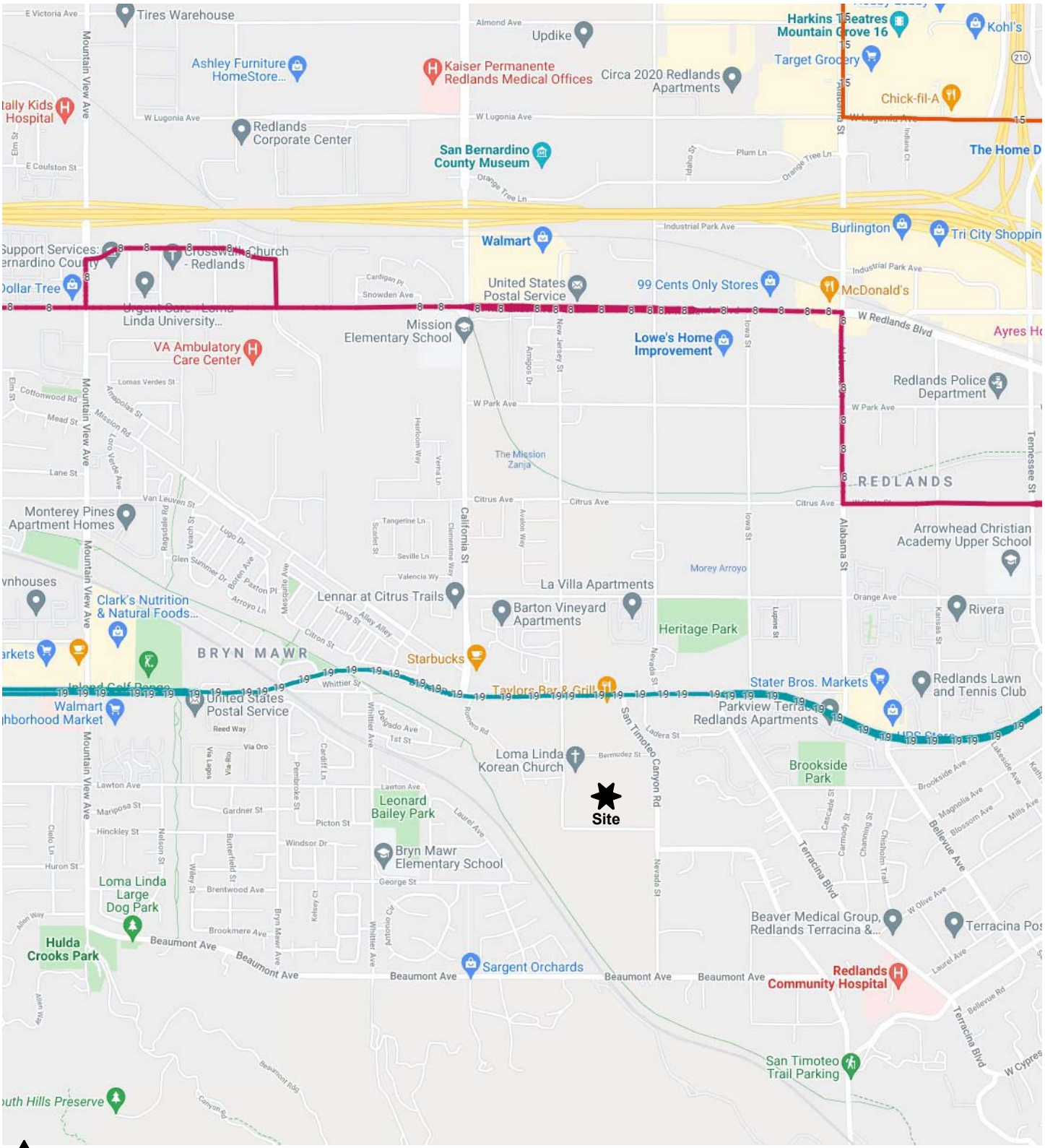


Figure 7
Existing Transit Routes

Source: Omnitrans

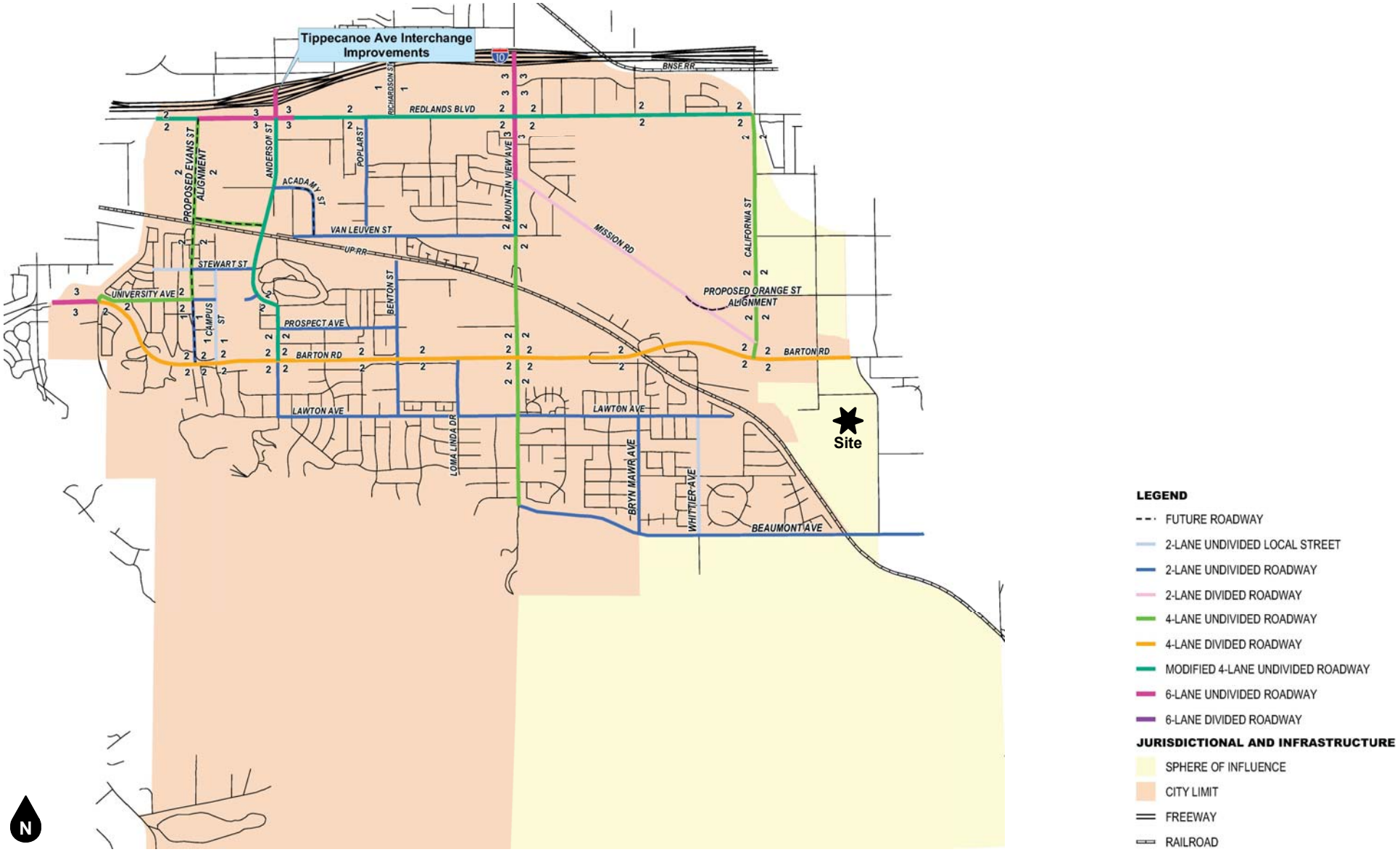
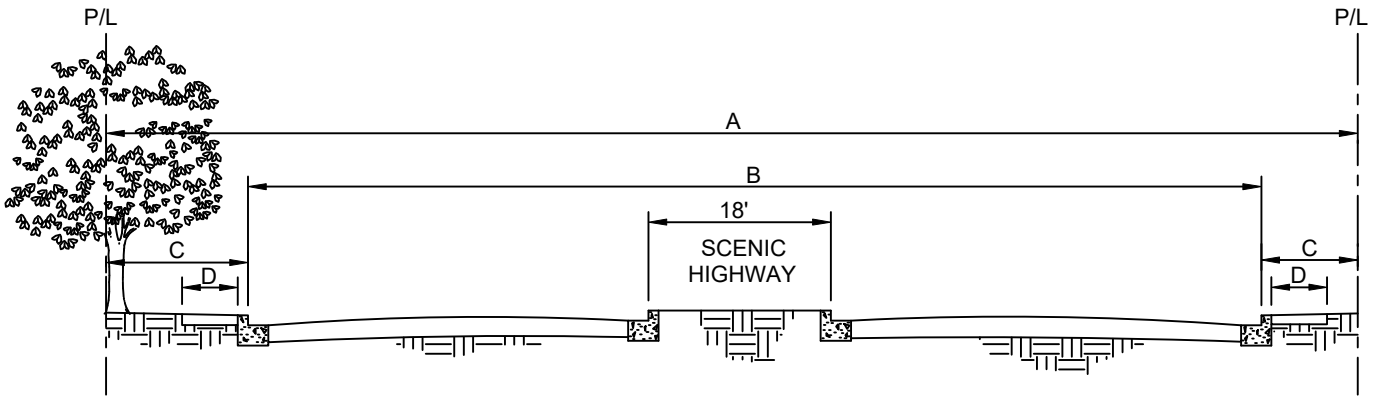
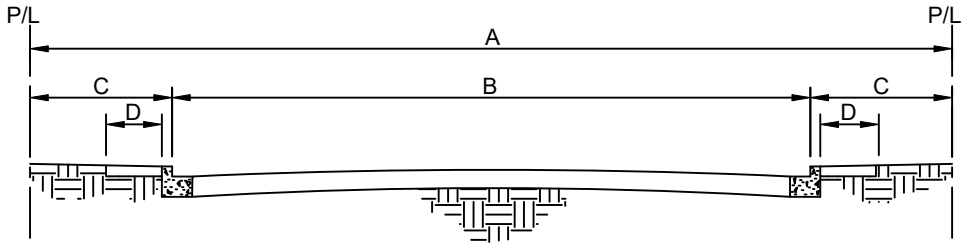


Figure 8
City of Loma Linda General Plan Circulation Element

Source: City of Loma Linda



MAJOR ARTERIAL SECTION



STANDARD SECTION

DIMENSIONS					MIN. PAVING	
STREET-TYPE	A	B	C	D*	T.I.	AC"/CAB"
LOCAL	60'	36'	12'	5'	6	3.5"/6"
COLLECTOR	64'	40'	12'	5'	6	3.5"/6"
COLLECTOR (SPECIAL)	66'	44'	11'	5'	7	4/6
SECONDARY HIGHWAY	88'	64'	12'	5'	8	4/7
MAJOR HIGHWAY	100'	72'	14'	5'	9	5/8
SCENIC HIGHWAY	120'	94'	13'	5'	9	5/8

*SIDEWALK EXTENDS TO PROPERTY LINE IN COMMERCIAL ZONE

Figure 9
City of Loma Linda General Plan Roadway Cross-Sections

Source: City of Loma Linda

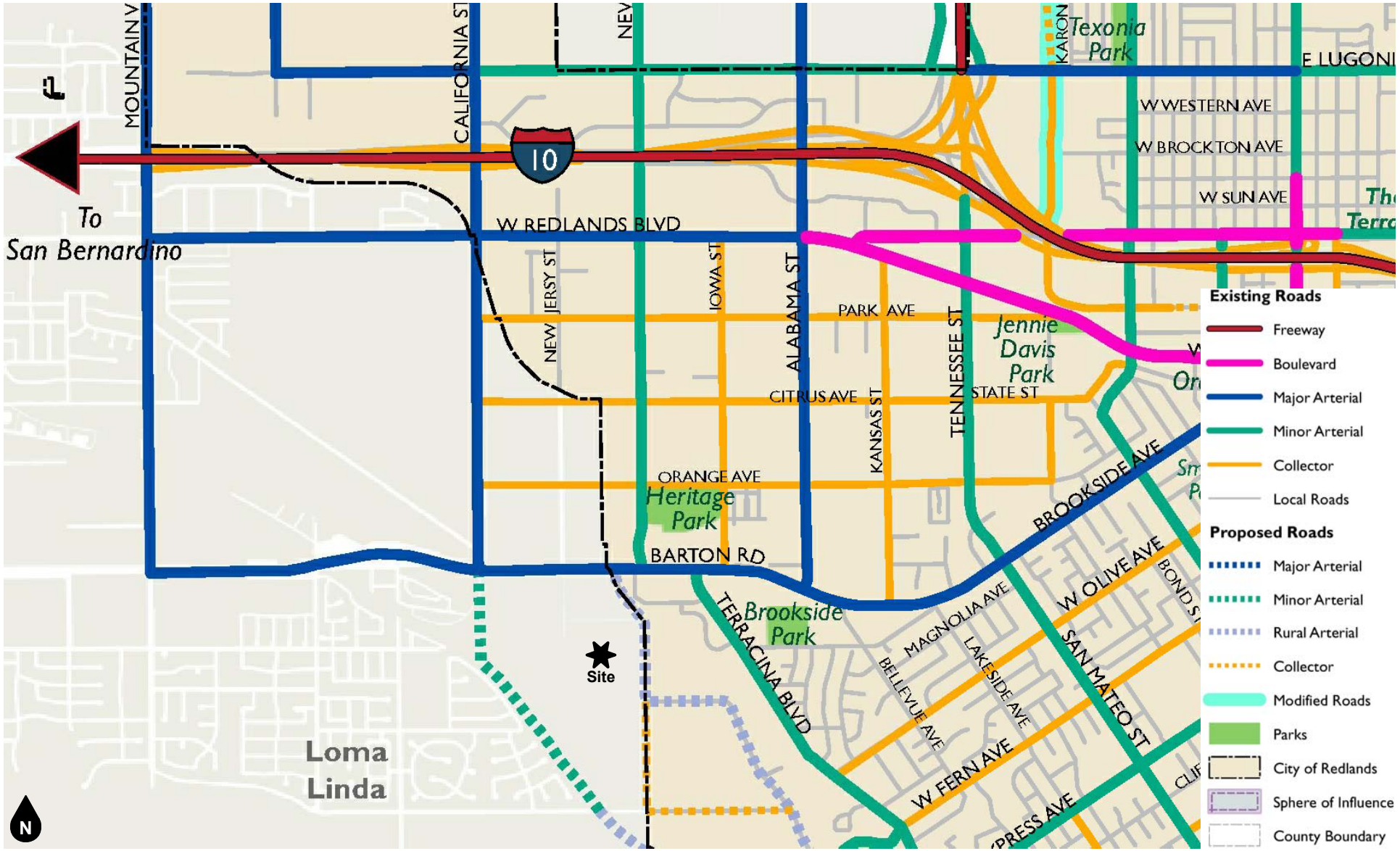
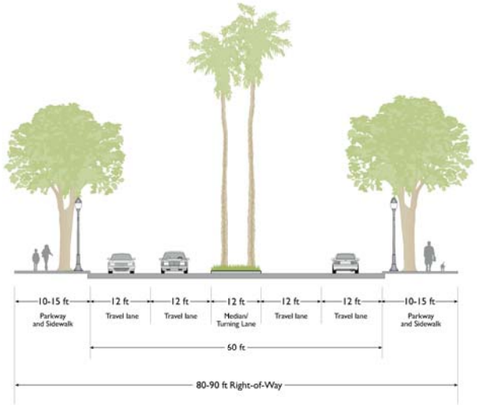


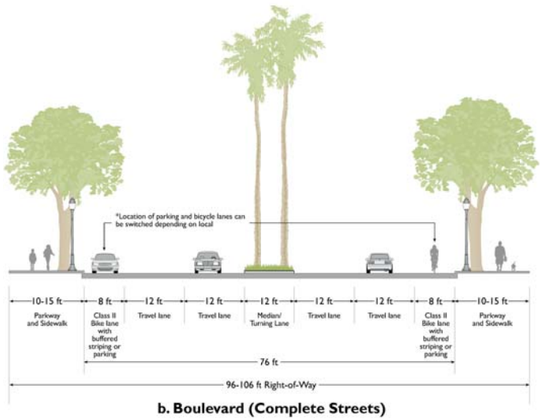
Figure 10
City of Redlands General Plan Circulation Element

Source: City of Redlands

BOULEVARDS

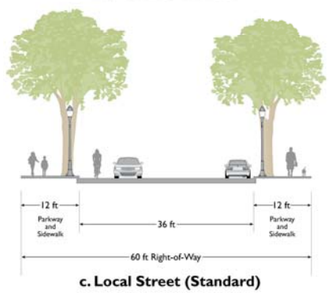


a. Boulevard (Standard)

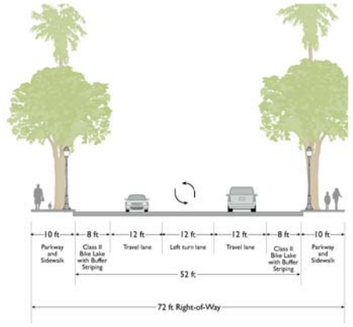


b. Boulevard (Complete Streets)

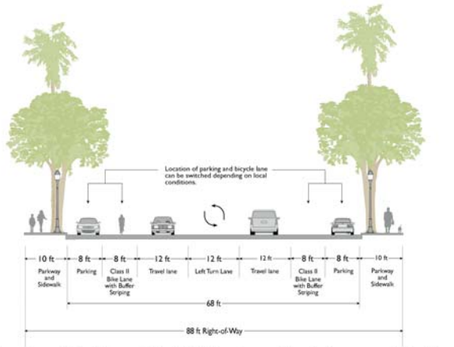
LOCAL STREET



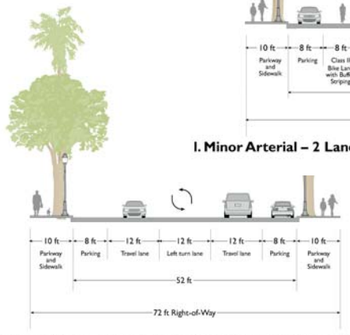
c. Local Street (Standard)



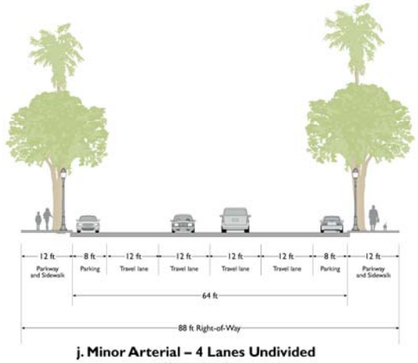
k. Minor Arterial – 2 Lanes Plus Left Turn Lane (Complete Streets)



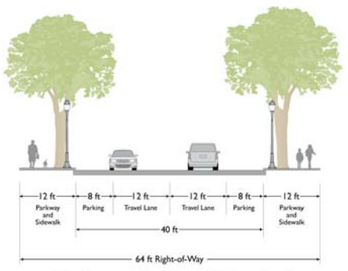
l. Minor Arterial – 2 Lanes Plus Left Turn Lane, Bicycle Lanes, and Parking (Complete Streets)



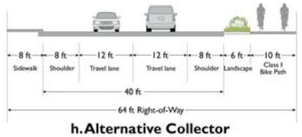
i. Minor Arterial – 2 Lanes Plus Left Turn Lane (Standard)



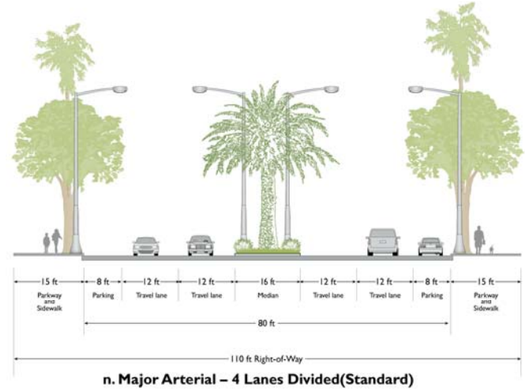
j. Minor Arterial – 4 Lanes Undivided (Standard)



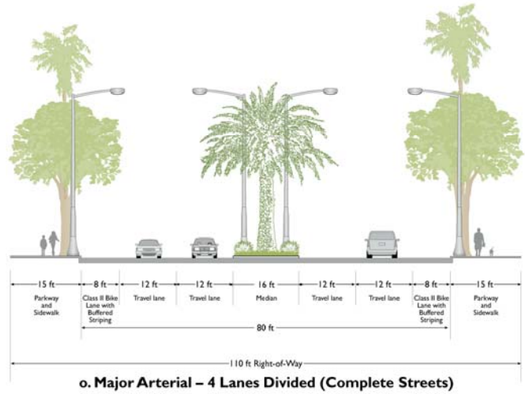
d. Collector – Residential (Standard)



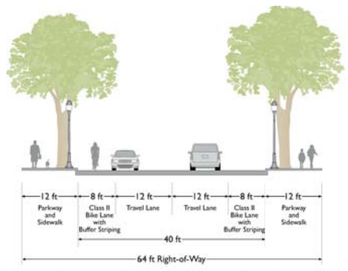
h. Alternative Collector



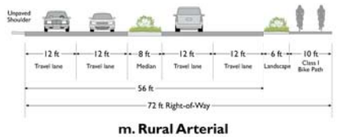
n. Major Arterial – 4 Lanes Divided(Standard)



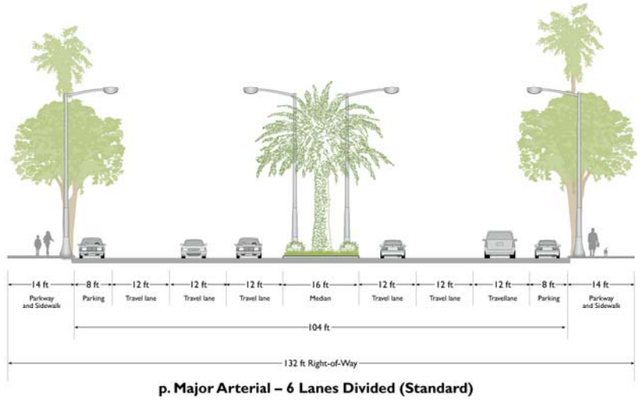
o. Major Arterial – 4 Lanes Divided (Complete Streets)



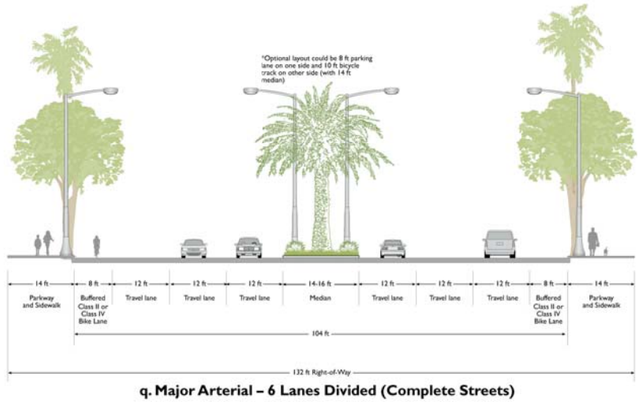
e. Collector – Residential (Complete Streets)



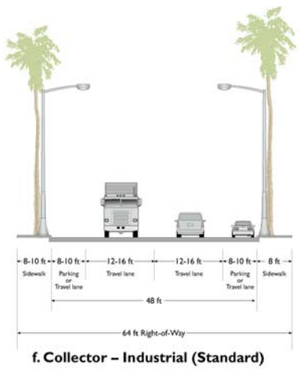
m. Rural Arterial



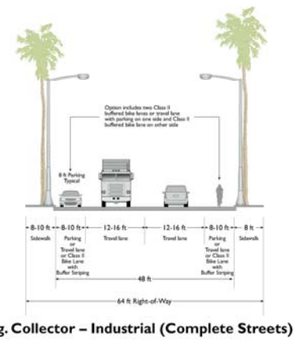
p. Major Arterial – 6 Lanes Divided (Standard)



q. Major Arterial – 6 Lanes Divided (Complete Streets)



f. Collector – Industrial (Standard)



g. Collector – Industrial (Complete Streets)

Figure 11
City of Redlands General Plan Roadway Cross-Sections

Source: City of Redlands

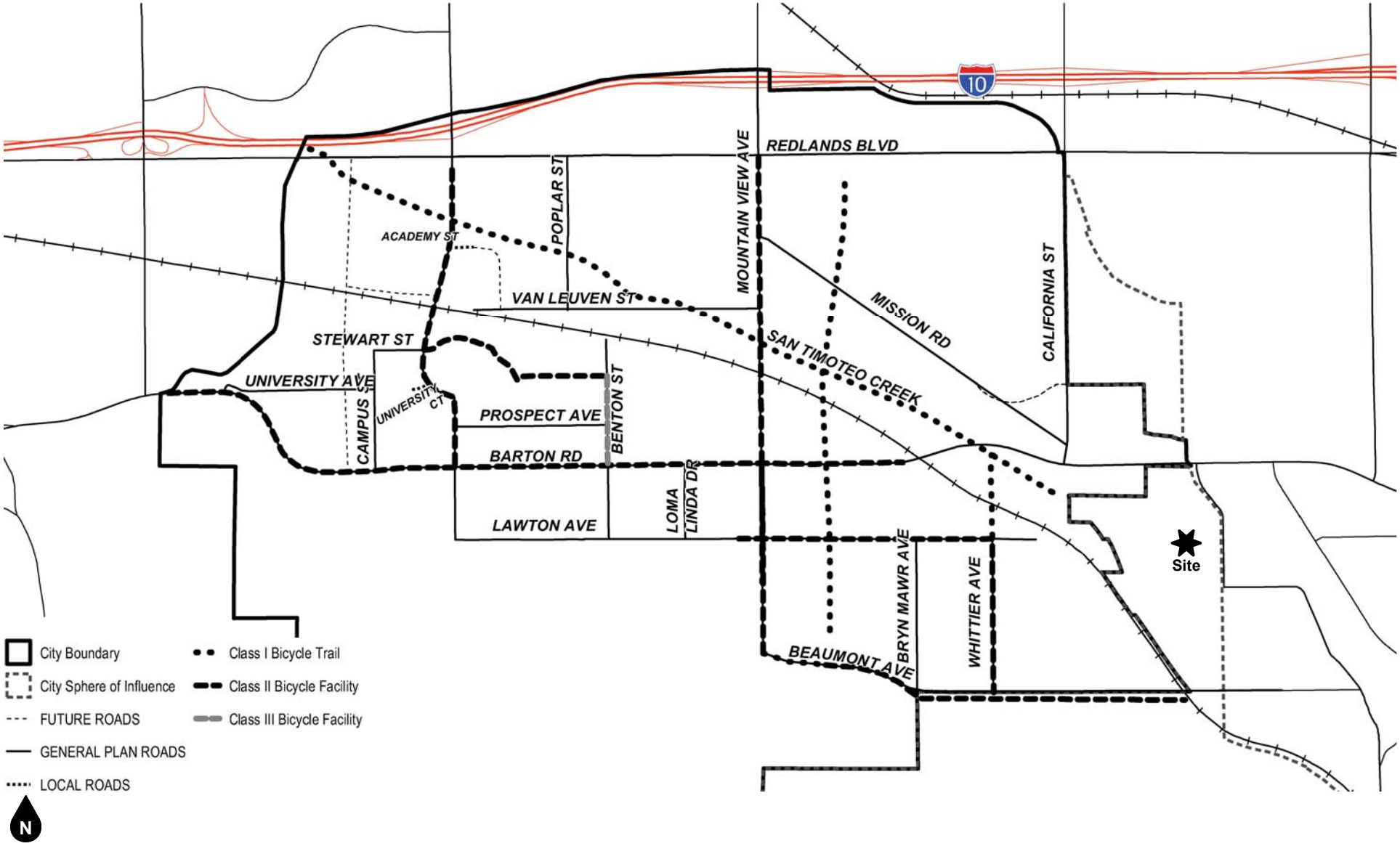


Figure 12
City of Loma Linda Bicycle Facilities and Pedestrian Trails Master Plan

Source: City of Loma Linda

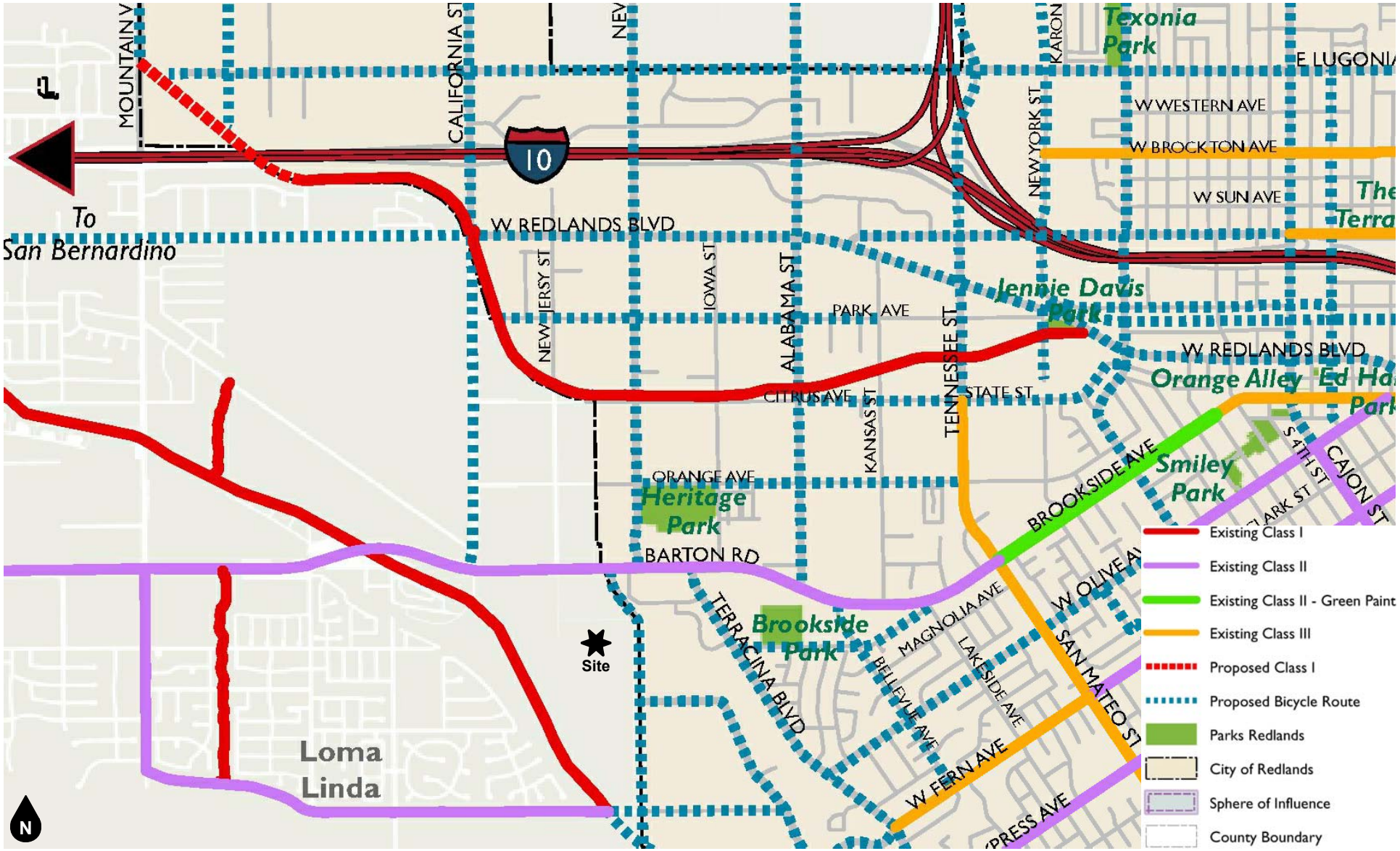


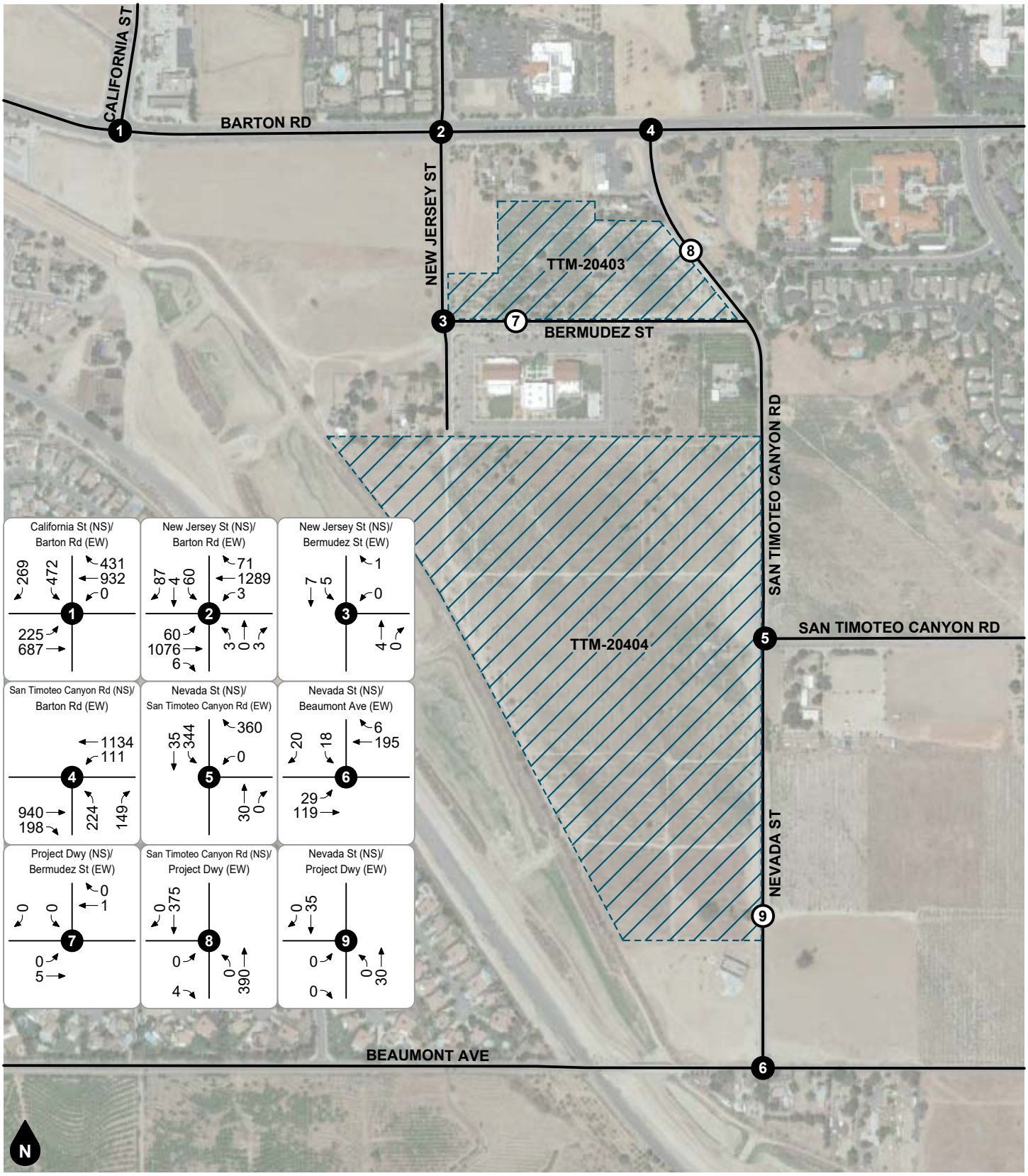
Figure 13
City of Redlands Bicycle Facilities and Pedestrian Trails Master Plan

Source: City of Redlands

Legend

●## Vehicles Per Day (1,000's)

Figure 14
Existing Average Daily Traffic Volumes

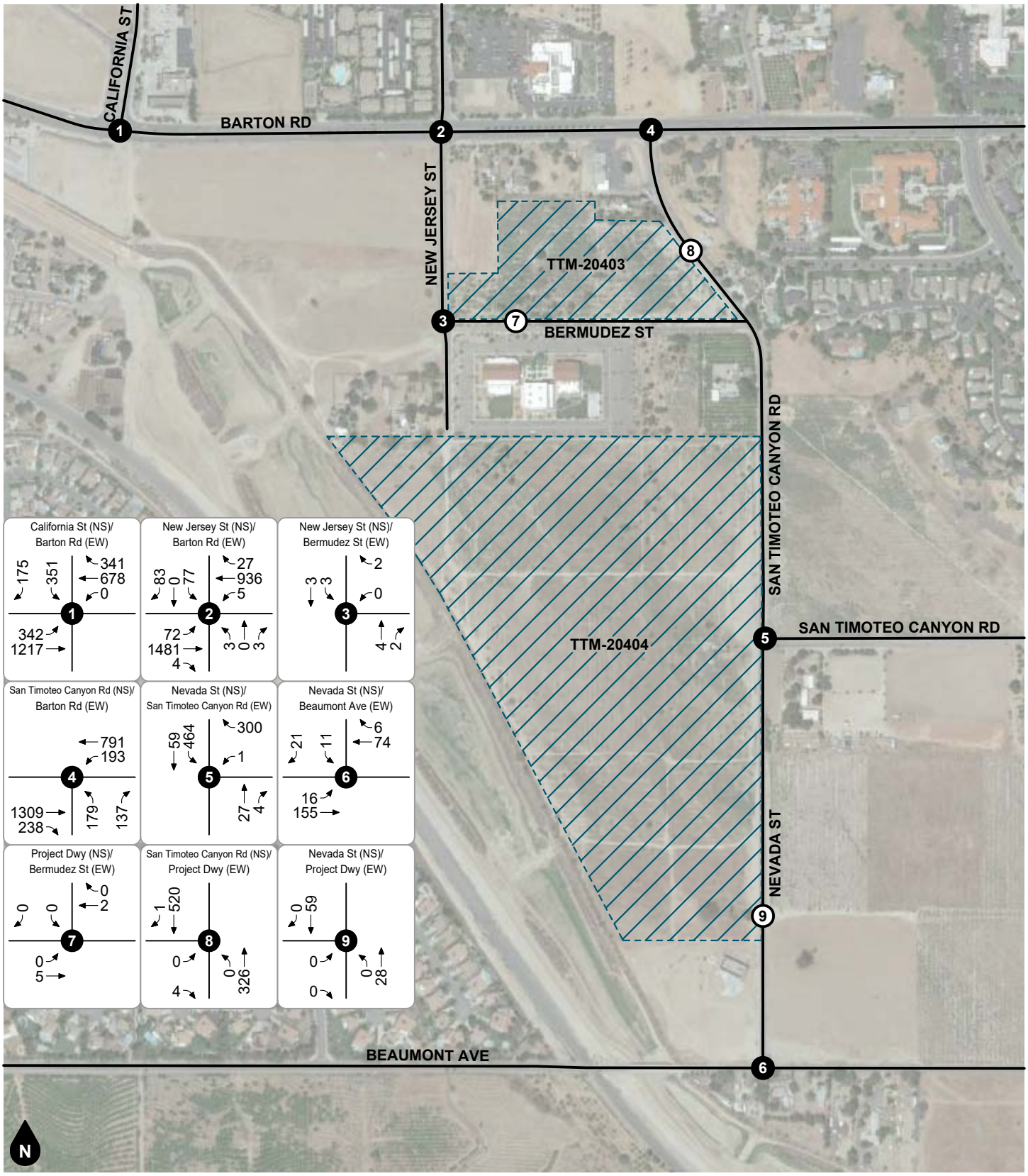


Legend

(#) Study Intersection

(#) Project Driveway

Figure 15
Existing AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

(#) Project Driveway

Figure 16
Existing PM Peak Hour Intersection Turning Movement Volumes

4. PROJECT TRIP FORECASTS

This section describes how project trip generation, trip distribution, and trip assignment forecasts were developed. The forecast project volumes are illustrated on figures contained in this section.

PROJECT TRIP GENERATION

Annexation Area

Table 2 shows proposed annex area trip generation is based upon trip generation rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). Trip generation rates for ITE Land Use Code 210 (single-family residential) and ITE Land Use Code 820 (commercial retail) were used for the total previously approved zoning area, and rates from ITE Land Use Code 210 (single-family residential), ITE Land Use Code 254 (assisted living), ITE Land Use Code 560 (church), ITE Land Use Code 562 (mosque) and ITE Land Use Code 820 (commercial retail) were used for the existing commercial and church development as well as the areas for the proposed residential properties. As shown in Table 2, the previously approved zoning and the future development were computed in acres and converted using residential density in dwellings per acre and commercial density in floor area ratio. When the actual commercial, church and proposed residential projects are accounted for and added to the remaining balance of the proposed zoning areas there is a slight reduction in the forecast trip generation for the General Plan Buildout condition.

As shown in Table 2, the proposed annex area is forecast to generate approximately 4,429 daily trips, including 382 trips during the AM peak hour and 1,136 trips during the PM peak hour. The proposed annexation/zone change is forecast to result in a net of 1,189 more daily trips, including 87 more trips during the AM peak hour and 118 more trips during the PM peak hour.

Residential Projects TTM-20403 and TTM-20404

Table 3 shows proposed project trip generation is based upon trip generation rates obtained from the (ITE) *Trip Generation Manual*. Trip generation rates for ITE Land Use Code 210 (single-family residential) were used for the proposed project. As shown in Table 3, the proposed project is forecast to generate approximately 1,188 daily trips, including 88 during the AM peak hour and 119 trips during the PM peak hour.

PROJECT TRIP DISTRIBUTION & ASSIGNMENT

Figure 17 and Figure 18 show the forecast outbound and inbound directional distribution patterns for the project generated trips, respectively. The project trip distribution patterns were determined in consultation with City staff based on review of existing traffic data, surrounding land uses, and the local and regional roadway facilities in the project vicinity.

Based on the identified project trip generation and distributions, project weekday average daily traffic volumes are shown on Figure 19. Project-generated AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure 20 and Figure 21.

Table 2
Annexation Area General Buildout Trip Generation

Trip Generation Rates									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Land Use Variable[2]	% In	% Out	Rate	% In	% Out	Rate	Daily Rate
Single-Family Detached Housing	ITE 210	DU	26%	74%	0.70	63%	37%	0.94	9.43
Church	ITE 560	TSF	62%	38%	0.32	44%	56%	0.49	7.60
Shopping Center (>150k)	ITE 820	TSF	62%	38%	0.84	48%	52%	3.40	37.01
Mosque	ITE 562	TSF	67%	33%	1.71	43%	57%	4.22	7.60

Trips Generated									
			AM Peak Hour			PM Peak Hour			
Land Use	Source	Quantity	In	Out	Total	In	Out	Total	Daily
Existing/Previous Zoning									
Commercial Retail (FAR = 0.5) (2.1 ac)	ITE 820	45.956 TSF	24	15	39	75	81	156	1,701
Rural Living (RL = 1 du/ 2.5ac) (28.2 ac)	ITE 210	11 DU	2	6	8	7	3	10	104
Low Density Rural Living (RL-5 = 1 du/ 5ac) (109.7 ac)	ITE 210	22 DU	4	11	15	13	8	21	207
Subtotal Previous Zoning		140.0 AC	30	32	62	95	92	187	2,012
Proposed Zoning									
TTM20403 (10.96 AC) - Low Density Residential	ITE 210	37 DU	7	19	26	22	13	35	349
TTM20404 (55.72 AC) - Very Low Density Residential	ITE 210	89 DU	16	46	62	53	31	84	839
Loma Linda Korean Church (7.3 ac)	ITE 560	42.900 TSF	9	5	14	9	12	21	326
Islamic Community Center of Redlands (5.5 ac)	ITE 562 [a]	29.520 TSF	34	16	50	54	71	125	224
Commercial Retail (FAR = 0.5) (9.87 ac)	ITE 820	202.031 TSF	105	65	170	330	357	687	7,477
Low Density Residential (4 du/ac) (14 ac)	ITE 210	52 DU	9	27	36	31	18	49	490
Very Low Density Residential (2 du/ac) (34.6 ac)	ITE 210	69 DU	13	35	48	41	24	65	651
Subtotal Proposed Land Use/Zoning			193	213	406	540	526	1,066	10,356
NET NEW TRIPS GENERATED			**+ 163**	**+ 181**	**+ 344**	**+ 445**	**+ 434**	**+ 879**	**+ 8,344**

Notes:

(1) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code. All rates based on General Urban/Suburban rates, unless otherwise noted.

[a] = Mosque trip generation rate for AM peak from ratio of AM/PM generator rates times the PM Peak hour rate. Daily rate based on Daily rates for Church/Synagogue.

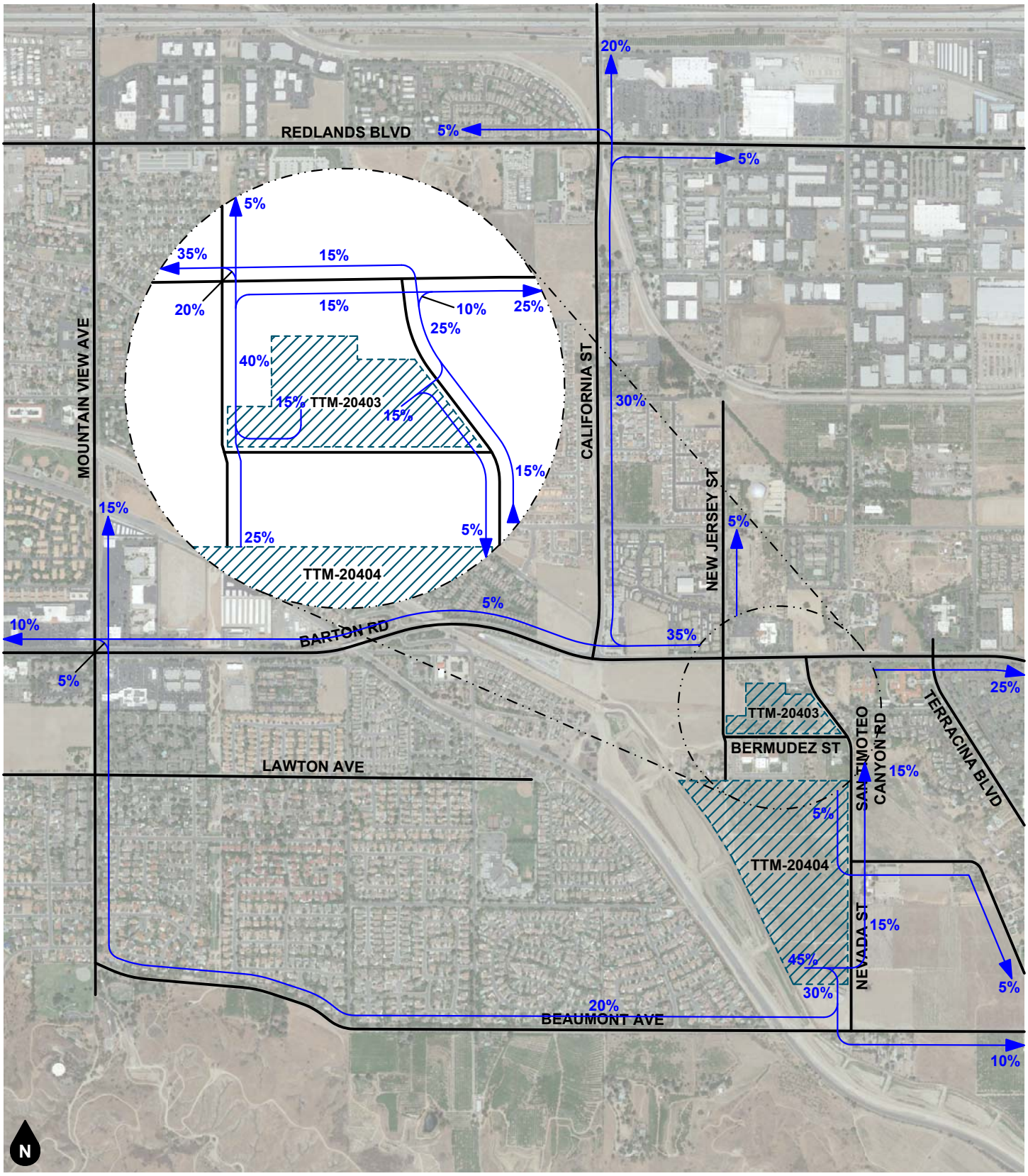
(2) DU = Dwelling Units; TSF = Thousand Square Feet; AC = Acre.

Table 3
Project Trip Generation

Trip Generation Rates									
			Weekday						
			AM Peak Hour			PM Peak Hour			Daily
Land Use	Source[1]	Land Use Variable[2]	% In	% Out	Rate	% In	% Out	Rate	Rate
Single-Family Detached Housing	ITE 210	DU	26%	74%	0.70	63%	37%	0.94	9.43

Trips Generated									
			AM Peak Hour			PM Peak Hour			
Land Use	Source	Quantity	In	Out	Total	In	Out	Total	Daily
TTM20403 (10.96 AC)	ITE 210	37 DU	7	19	26	22	13	35	349
TTM20404 (55.72 AC)	ITE 210	89 DU	16	46	62	53	31	84	839
NET NEW TRIPS GENERATED			**+ 23**	**+ 65**	**+ 88**	**+ 75**	**+ 44**	**+ 119**	**+ 1,188**

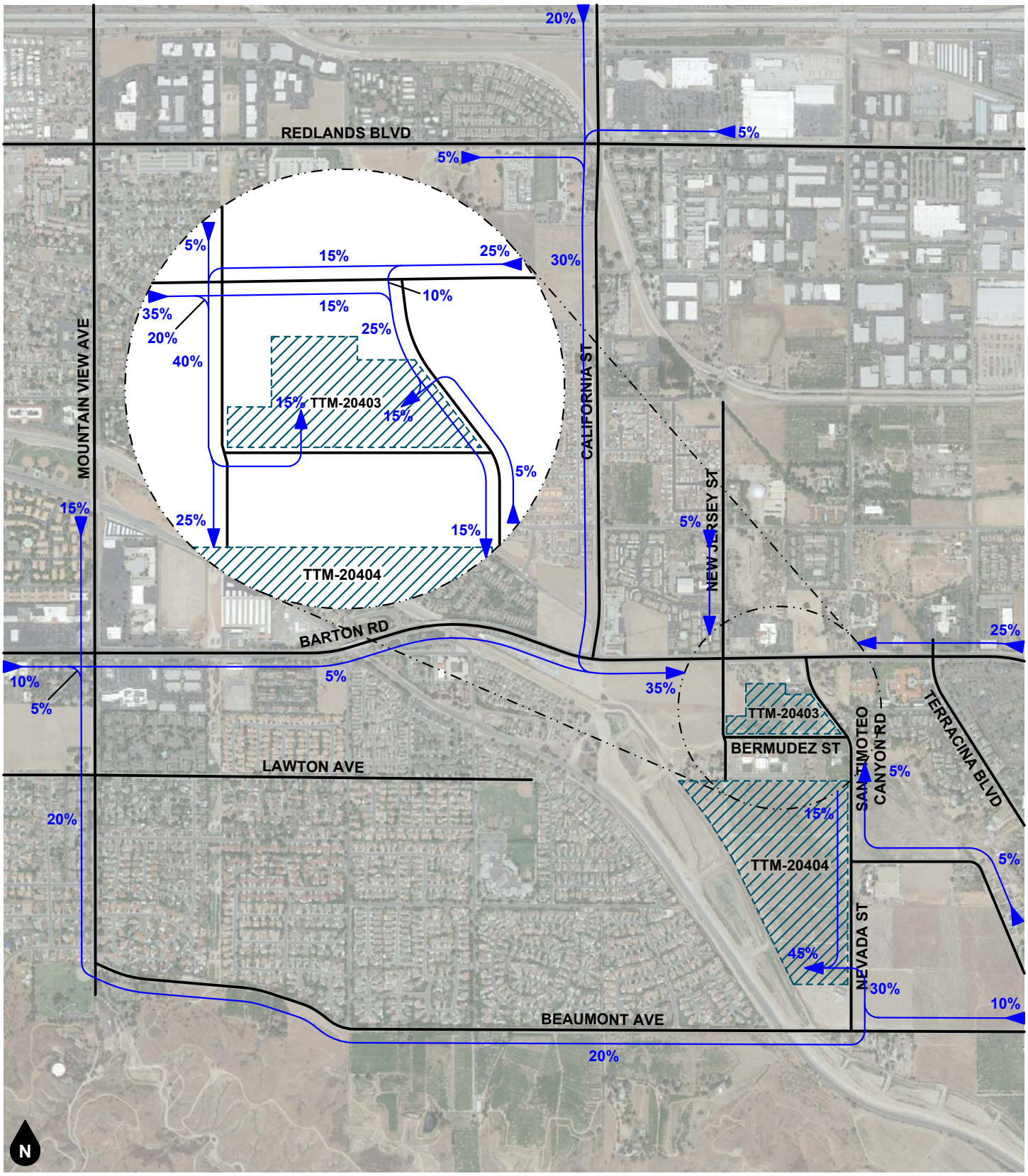
Notes:
(1) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code. All rates based on General Urban/Suburban rates, unless otherwise noted.
(2) DU = Dwelling Units.



Legend

10% Percent From Project

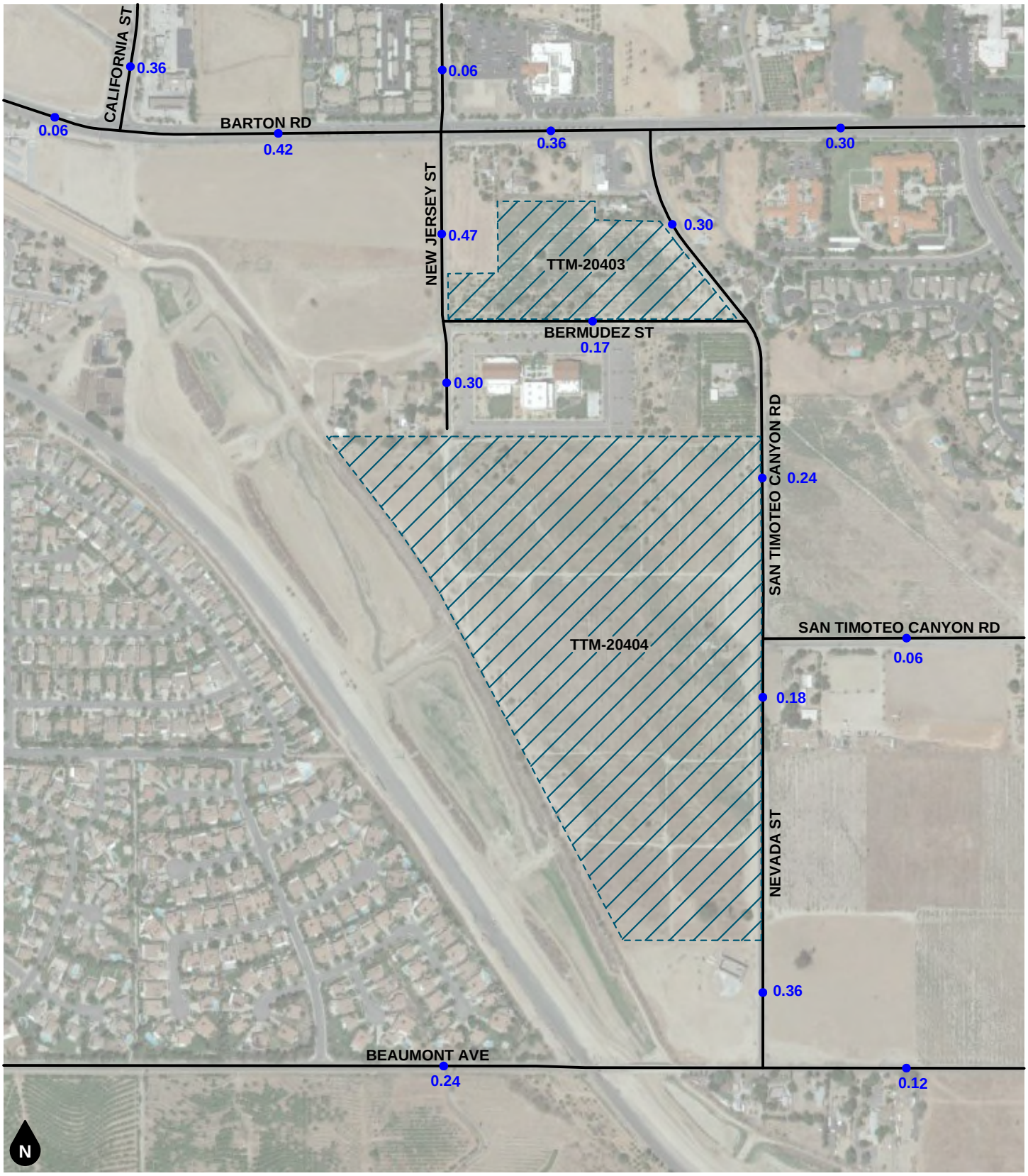
Figure 17
Project Trip Distribution (Outbound)



Legend

10% Percent To Project

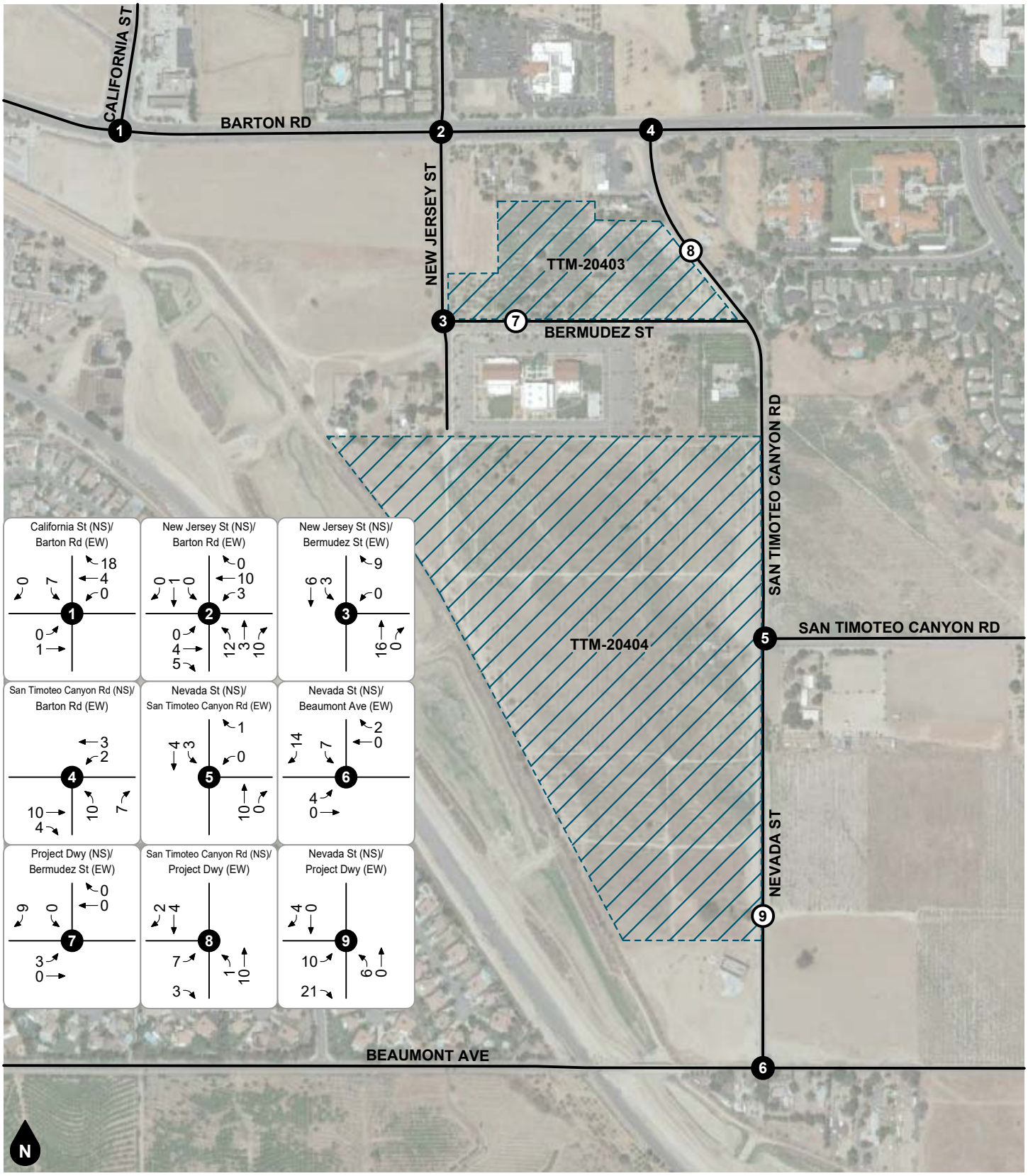
Figure 18
Project Trip Distribution (Inbound)



Legend

●## Vehicles Per Day (1,000's)

Figure 19
Project Average Daily Traffic Volumes

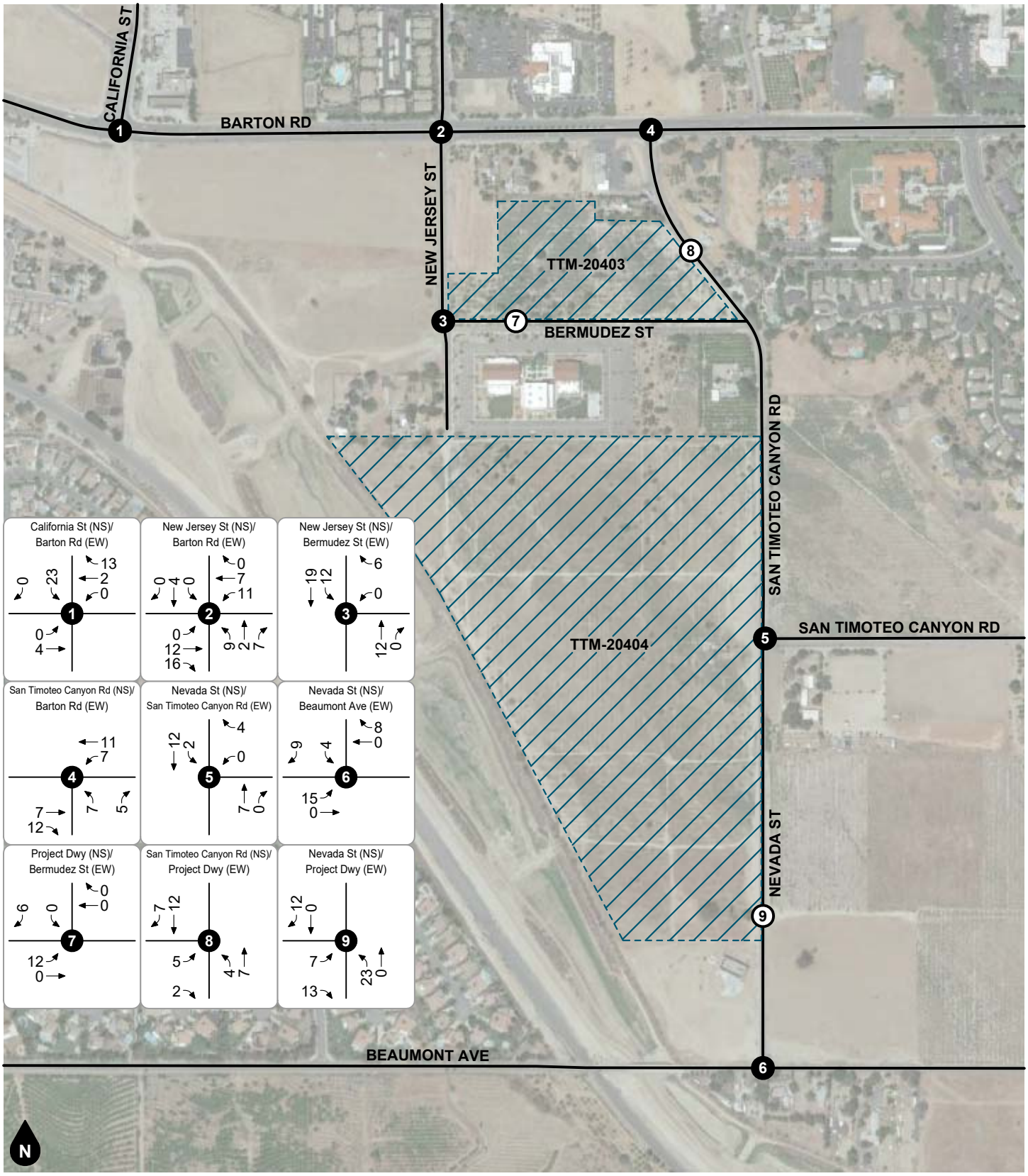


Legend

(#) Study Intersection

(#) Project Driveway

Figure 20
Project AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

(#) Project Driveway

Figure 21
Project PM Peak Hour Intersection Turning Movement Volumes

5. FUTURE VOLUME FORECASTS

This section describes how future volume forecasts for each analysis scenario were developed. Forecast study area volumes are illustrated on figures contained in this section.

METHOD OF PROJECTION

To assess future conditions, existing volumes were combined with project trips, ambient growth, and other development trips. The project completion year for analysis purposes in this report is 2024.

Ambient Growth

To account for ambient growth on roadways, existing (year 2021) volumes were increased by a growth rate of one percent (2.0%) per year over a three-year period. This equates to a total growth factor of approximately 1.06. This is a conservative assumption since the ambient growth was applied to all movements at the study intersections.

Other Developments

To account for growth associated with other development projects, trips generated by other pending or approved but unconstructed developments in the City of Loma Linda and City of Redlands were reviewed and added to the study area as appropriate. The other development trip generation summary is shown in Table 4. The regional ambient growth is assumed to account for any additional trips generated by other developments not specifically listed in Table 4. Figure 22 shows the other development location map.

Average daily traffic volumes generated by other developments are shown on Figure 23. Figure 24 and Figure 25 show the forecast AM peak hour and PM peak hour intersection turning movement volumes for trips generated by other developments.

Model General Buildout Growth

General Buildout (Year 2040) forecasts have been determined using a growth increment approach with the San Bernardino Transportation Analysis Model (SBTAM) base year and horizon year travel demand model plots. This difference defines the incremental growth in forecast volumes over the model growth period. The incremental growth in average daily traffic volume has been factored to reflect the forecast growth between the measured count year (2021) and year 2040. For analysis purposes, linear growth between the base year condition and the horizon year condition was assumed.

To derive am and pm peak hour intersection turning movement volumes, the traffic volume growth forecasts were further refined using a spreadsheet program developed by the federal highway administration and consistent with traffic volume forecasting procedures outlined in the national cooperative highway research program report 255. The spreadsheet program uses a linear programming algorithm to calculate future turning movements based on the relationship of existing intersection turning movements and forecast model growth. The forecast turning movements developed by the spreadsheet program were reviewed for reasonableness and adjusted as necessary to ensure growth over near-term forecasts. The end results of the post-processing procedures are future intersection turning movement volumes suitable for analysis. Travel demand model plots are provided in Appendix E. Travel demand model post-processing worksheets are provided in Appendix F.

ANALYSIS SCENARIO VOLUMES

Existing Plus Project

The Existing Plus Project volume forecast was developed by adding project-generated trips to existing (year 2021) volumes. Existing Plus Project average daily traffic volumes are shown on Figure 26. Existing Plus Project AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure 27 and Figure 28.

Opening Year (2024) Without Project

The Opening Year (2024) Without Project volume forecast was developed by applying the ambient growth factor to existing (year 2021) volumes and adding trips generated by other developments. Opening Year (2024) Without Project average daily traffic volumes are shown on Figure 29. Opening Year (2024) Without Project AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure 30 and Figure 31.

Opening Year (2024) With Project

The Opening Year (2024) With Project volume forecast was developed by adding project-generated trips to the Opening Year (2024) Without Project volumes. Opening Year (2024) With Project average daily traffic volumes are shown on Figure 32. Opening Year (2024) With Project AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure 33 and Figure 34.

Year 2040 Without Project

The Year 2040 Without Project volume forecast was developed based on SBTAM travel demand growth forecasts and post-processing procedures described above. Year 2040 Without Project average daily traffic volumes are shown on Figure 35. Year 2040 Without Project AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure 36and Figure 37.

Year 2040 With Project

The Year 2040 With Project volume forecast was developed by adding project-generated trips to the Year 2040 Without Project scenario. Year 2040 With Project average daily traffic volumes are shown on Figure 38. Year 2040 With Project AM peak hour and PM peak hour intersection turning movement volumes are shown on Figure 39 and Figure 40.

Table 4 (1 of 3)
Other Development Trip Generation

Other Development						AM Peak Hour			PM Peak Hour			
ID	Name/Address	Land Use	Source	Quantity	Units	In	Out	Total	In	Out	Total	Daily
City of Loma Linda												
L1	25915 Barton Rd Medical	Medical-Dental Office Building (Standalone)	ITE 720	16.643	TSF	41	11	52	20	45	65	599
L2	Citrus Glen 24 SE of California/Citrus St	Single-Family Detached Housing	ITE 210	59	DU	11	30	41	35	20	55	556
L3	Citrus Trails SW of California/Citrus St	Single-Family Detached Housing	ITE 210	224	DU	41	116	157	133	78	211	2,112
L4	Groves SP(PA2-3 & PA-2-4) NWC Park Ave/Heirloom W	Senior Adult Housing - Multifamily	ITE 252	213	DU	14	29	43	30	24	54	690
L5	Groves SP(PA3-2) SW of Bryn Mawr/Park Ave	Single-Family Attached Housing	ITE 215	57	DU	8	19	27	19	13	32	410
L6	Groves SP(PA2-6 & PA-3-4) SE of Bryn Mawr/Park Ave	Public Park	ITE 411	30	DU	0	1	1	2	1	3	23
L7	Groves SP(PA-3-4) SE of Bryn Mawr/Park Ave	Recreational Community Center	ITE 495	3.387	DU	4	2	6	4	4	8	98
L8	Groves SP(PA3-4) NE Bryn Mawr/Citrus St	Fire and Rescue Station	ITE 575 [a]	3.960	DU	1	1	2	1	1	2	19
L9	Groves SP(PA3-5) NW of Bryn Mawr/Citrus St	Single-Family Attached Housing	ITE 215	5.387	DU	1	2	3	2	1	3	39
L10	Groves SP(PA-3-6) NW of California/Mission	Single-Family Detached Housing	ITE 210	52	DU	9	27	36	31	18	49	490
L11	LLI Broadcast Network Bldg 11327 Main St	Warehousing	ITE 150	8.900	TSF	1	1	2	0	2	2	15
L12	O'Reilly Auto Parts 25630 Redlands Blvd	Automobile Parts Sales Pass-by: 0% AM, 43% PM & 10% Daily	ITE 843 [b]	7.000	TSF	10	8	18	16 -6	18 -8	34 -14	382 -38
L13	Dutch Motel Expansion 25252 Redlands Blvd	Hotel	ITE 310	22	RM	6	4	10	7	6	13	176
L14	CHP Office 25884 Business Center Dr	Single Tenant Office Building	ITE 715	3.387	TSF	6	0	6	1	5	6	44
L15	Candlewood Suites 10372 Richardson St	Hotel	ITE 310	91	RM	23	19	42	27	27	54	727
L16	CA Eye Care Center NWC Redlands/Richardson	Medical-Dental Office Building (Standalone)	ITE 720	30.382	TSF	74	20	94	36	83	119	1,094
L17	Courtyard Marriot NW of Redlands/Richardson	Hotel	ITE 310	125	RM	32	26	58	38	36	74	999

Table 4 (2 of 3)
Other Development Trip Generation

Other Development						AM Peak Hour			PM Peak Hour			
ID	Name/Address	Land Use	Source	Quantity	Units	In	Out	Total	In	Out	Total	Daily
L18	TTM20226 SE of 1st St/Winter Ave	Single-Family Detached Housing	ITE 210	16	DU	3	8	11	9	6	15	151
L19	25962 Juanita St	Single-Family Detached Housing	ITE 210	1	DU	0	1	1	1	0	1	9
L20	25952 Juanita St	Single-Family Detached Housing	ITE 210	1	DU	0	1	1	1	0	1	9
L21	Islamic Comm Center NWC Beaumont/New Jersey	Mosque	[a] ITE 562 [c]	29.520	TSF	34	16	50	54	71	125	1,557
City of Redlands												
R1	NEC San Timoteo / Nevada	Single-Family Detached Housing	ITE 210	27	DU	5	14	19	16	9	25	255
R2	301 W. Palm Ave	Single-Family Detached Housing	ITE 210	28	DU	5	15	20	17	9	26	264
R3	600 North Place	Assisted Living	ITE 254	28	BED	3	2	5	3	4	7	73
R4	1500 Barton Rd	Fast-Food Restaurant with Drive-Through Window	ITE 934	4.052	TSF	92	89	181	70	64	134	1,894
		Pass-by: 50%AM, 55%PM & 26%Daily	[b]			-46	-44	-90	-38	-35	-73	-492
R5	Orange Ave / Eureka St	Multifamily Housing (Low-Rise, Not Close to Rail Transit	ITE 220	328	DU	31	100	131	105	62	167	2,211
R6	NWC Sunnyside / Linda Vista A	Single-Family Detached Housing	ITE 210	20	DU	4	10	14	12	7	19	189
R7	10756 Nevada St.	General Light Industrial	ITE 110	85.430	TSF	56	7	63	8	48	56	416
R8	1702 W Park Ave	General Light Industrial	ITE 110	7.198	TSF	5	0	5	1	4	5	35
R9	1941 W Park Ave	General Light Industrial	ITE 110	38.740	TSF	25	4	29	4	21	25	189
R10	10843 New Jersey St	General Light Industrial	ITE 110	179.400	TSF	117	16	133	16	101	117	874
R11	SEC Park Ave / Iowa St	Warehousing	ITE 150	153.994	TSF	20	6	26	8	20	28	263
R12	NWC Kansas St / Park Ave	Warehousing	ITE 150	83.875	TSF	11	3	14	4	11	15	143
R13	NWC Brookside / Eureka	Multifamily Housing (Low-Rise, Not Close to Rail Transit	ITE 220	149	DU	14	46	60	48	28	76	1,004
		Strip Retail Plaza (<40k)	ITE 822	10.430	TSF	15	10	25	34	35	69	568
R14	317 Brookside Ave	Multifamily Housing (Low-Rise, Not Close to Rail Transit	ITE 220	8	DU	1	2	3	3	1	4	54
R15	SEC Citrus / Eureka	Pharmacy Drugstore with Drive-Through Window	ITE 881	14.500	TSF	28	26	54	74	75	149	1,572
		Pass-by: 0% AM, 49% PM & 12% Daily	[b]						-36	-37	-73	-188
R16	SWC Orange / Shoppers Ln	Strip Retail Plaza (<40k)	ITE 822	10.000	TSF	14	10	24	33	33	66	545
		Drive-in Bank	ITE 912	5.200	TSF	30	22	52	55	54	109	522
		Pass-by: 29% AM, 35% PM & 16% Daily	[b]			-8	-7	-15	-19	-19	-38	-83

Table 4 (3 of 3)
Other Development Trip Generation

Other Development						AM Peak Hour			PM Peak Hour			
ID	Name/Address	Land Use	Source	Quantity	Units	In	Out	Total	In	Out	Total	Daily
R17	SEC Stuart Ave / Orange	Coffee Donut Shop with Drive-Through Window	ITE 937	2.400	TSF	105	101	206	47	47	94	1,281
R18	SWC Stuart Ave. & Eureka St.	Strip Retail Plaza (<40k)	ITE 822	15.250	TSF	22	14	36	50	50	100	830
R19	SW of Stuart Ave/ 3rd St	Strip Retail Plaza (<40k)	ITE 822	5.370	TSF	8	5	13	18	17	35	292
R20	101 W. Redlands Blvd	Multifamily Housing (Low-Rise, Not Close to Rail Transit	ITE 220	700	DU	67	213	280	225	132	357	4,718
		Shopping Plaza (40-150k without Supermarket)	ITE 821	65.468	TSF	70	43	113	166	174	340	4,420
		Pass-by: 0% AM, 40% PM & 10% Daily	[b]						-66	-70	-136	-442
		General Office Building	ITE 710	12.000	TSF	16	2	18	3	14	17	130
R21	SW of Colton / Eureka St	Hotel	ITE 310	90	RM	23	18	41	27	26	53	719
R22	NW Colton /New York St	Mini-Warehouse	ITE 151	62.458	TSF	3	3	6	4	5	9	91
R23	1342 Industrial Park Ave	Hotel	ITE 310	77	RM	20	15	35	23	22	45	615
R24	1700 Orange Tree Ln.	Hotel	ITE 310	123	RM	32	25	57	37	36	73	983
R25	SWC Alabama / Stuart Ave	Self-Service Car Wash	ITE 947 [a]	1	WS	2	2	4	3	3	6	108
R26	NW of Nevada / Redlands	Medical-Dental Office Building (Standalone)	ITE 720	16.714	TSF	41	11	52	20	46	66	602
TOTAL TRIPS GENERATED						**+ 1,150**	**+ 1,125**	**+ 2,275**	**+ 1,436**	**+ 1,448**	**+ 2,884**	**+ 34,816**

Notes:

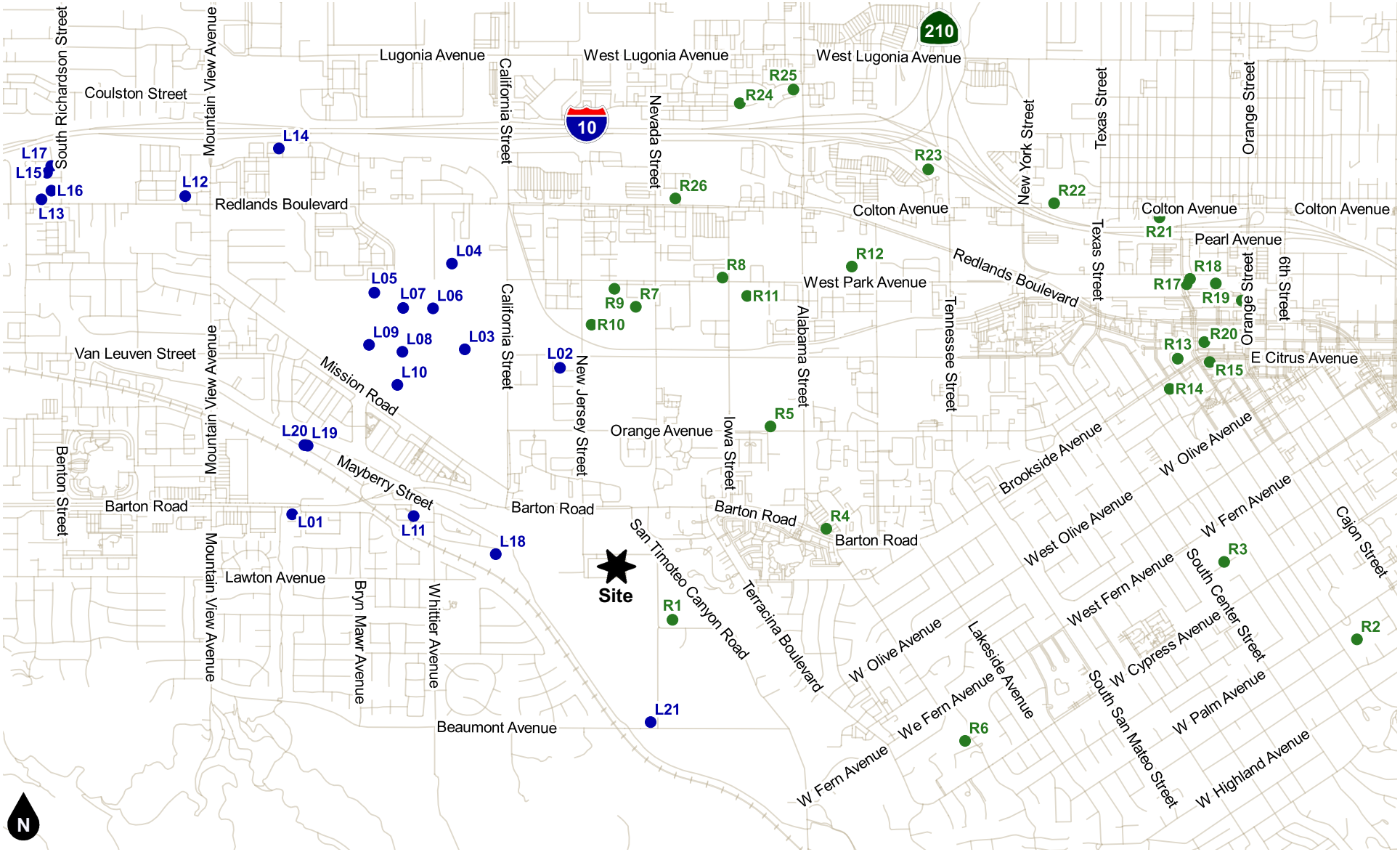
(1) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code. All rates based on General Urban/Suburban rates, unless otherwise noted.

[a] = San Diego Association of Governments (SANDAG) *Vehicular Traffic Generation Rates* (April 2002). Where the daily or peak hour rate is not provided by ITE, the SANDAG percentage of peak hour to daily rate is used to calculate the missing data. Where the peak hour distribution is not provided by ITE, the SANDAG peak hour distribution is used.

[b] = ITE *Trip Generation Handbook* (3rd Edition, 2017), pass-by rates calculated in accordance with procedures in the handbook. For time periods with no pass-by data provided in ITE Trip Generation Handbook, pass-by rates assumed as half of ITE peak hour rate.

[c] = Mosque trip generation rate for AM peak from ratio of AM/PM generator rates times the PM Peak hour rate. Daily rate based on SANDAG percentage of PM to Daily rates for Church/Synagogue.

(2) TSF = Thousand Square Feet; DU = Dwelling Unit; RM = Hotel Room.



Legend

\# Other Development ID in:

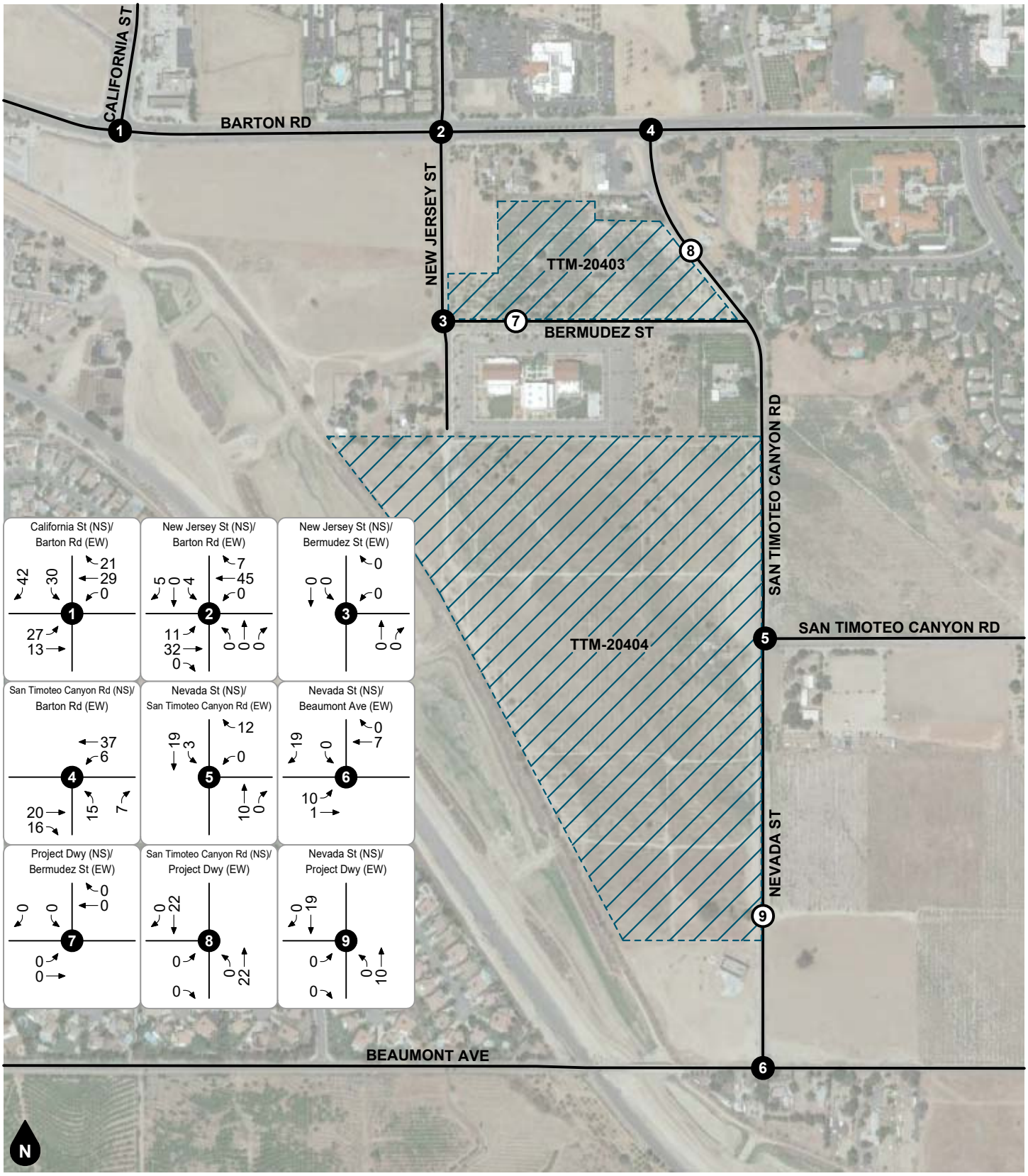
- City of Loma Linda
- City of Redlands

Figure 22
Other Development Location Map

Legend

●## Vehicles Per Day (1,000's)

Figure 23
Other Development Average Daily Traffic Volumes

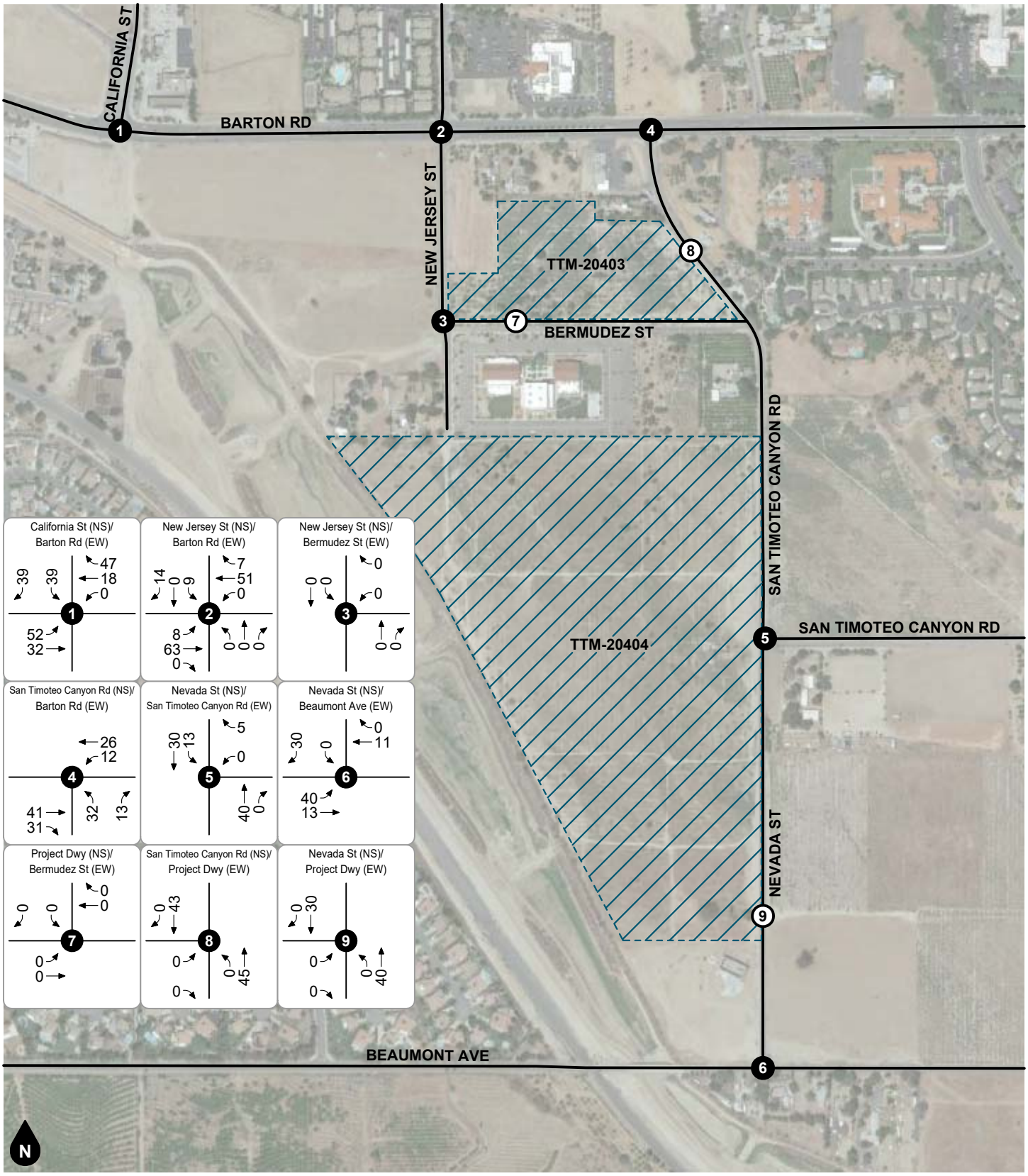


Legend

Study Intersection

(#) Project Driveway

Figure 24
Other Development
AM Peak Hour Intersection Turning Movement Volumes

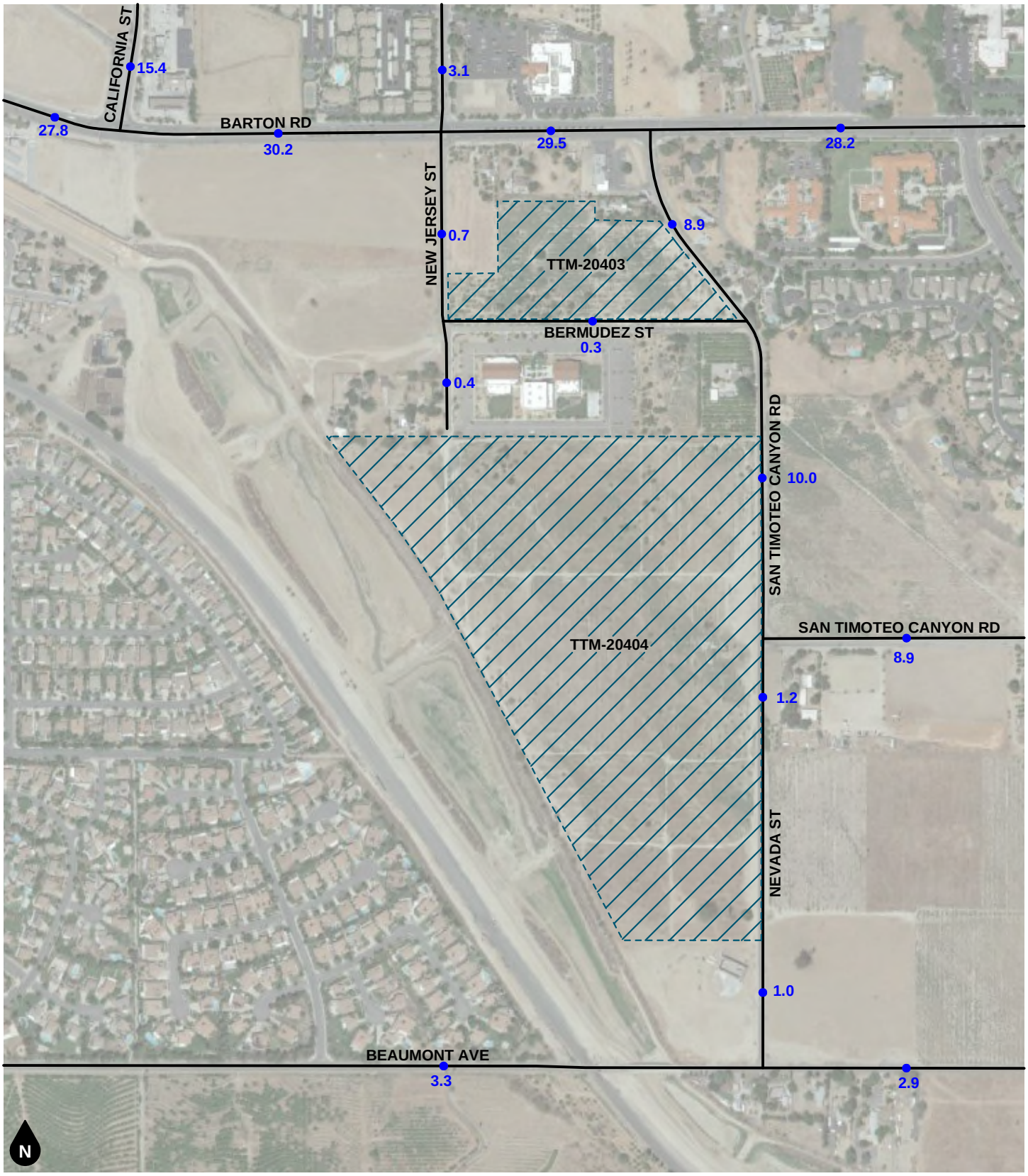


Legend

(#) Study Intersection

(#) Project Driveway

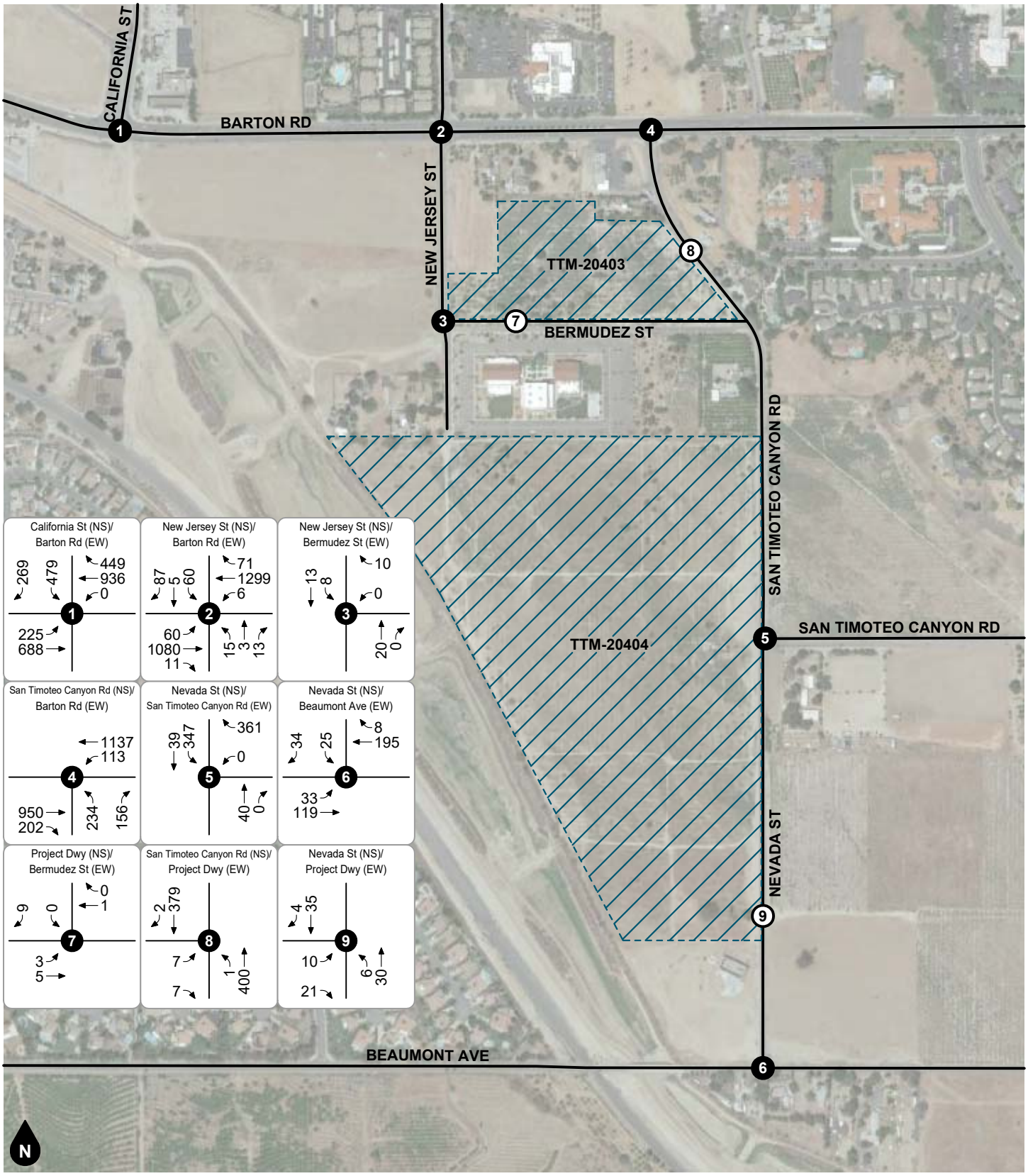
Figure 25
Other Development
PM Peak Hour Intersection Turning Movement Volumes



Legend

●## Vehicles Per Day (1,000's)

Figure 26
Existing Plus Project Average Daily Traffic Volumes

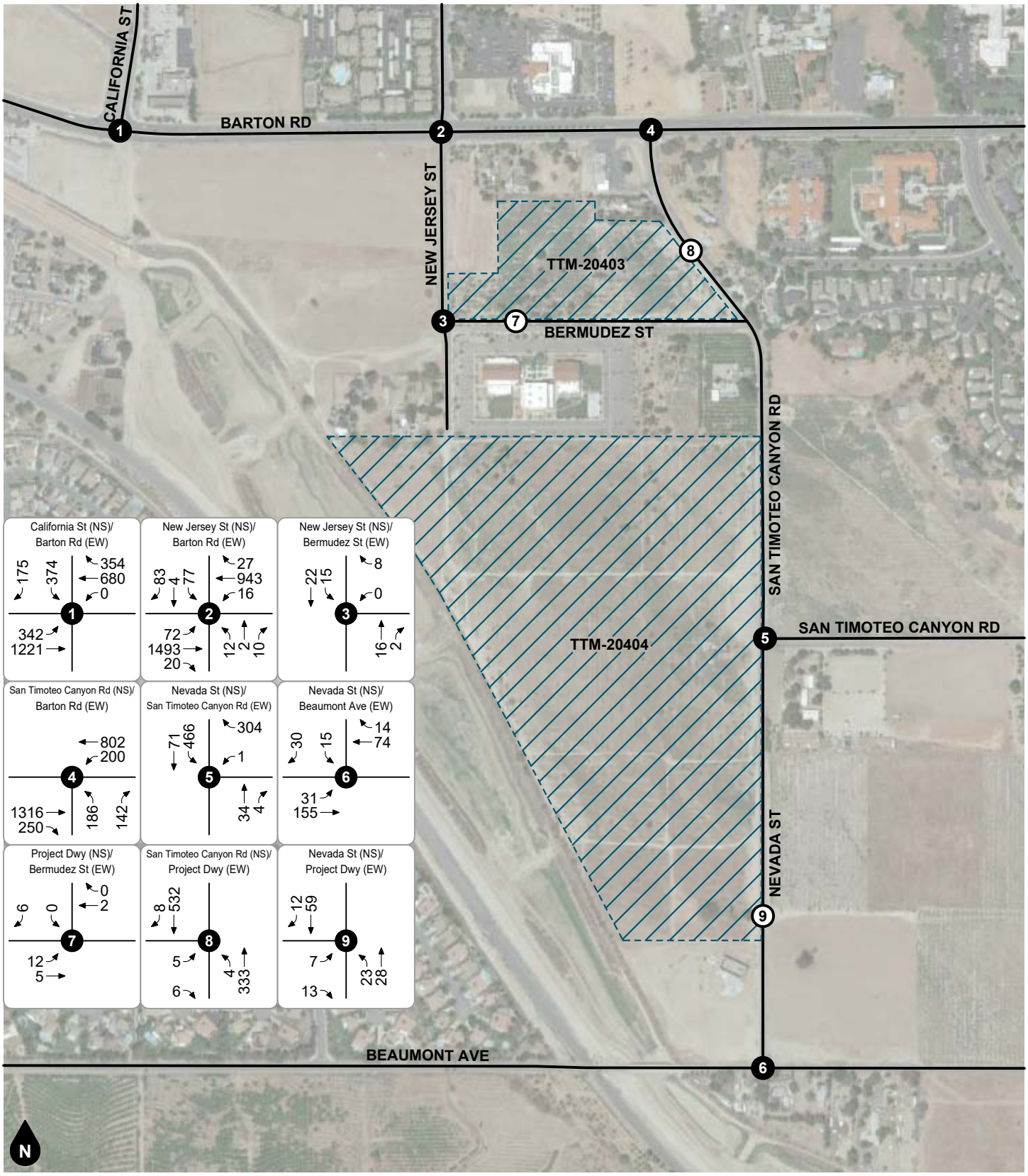


Legend

Study Intersection

Project Driveway

Figure 27
Existing Plus Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

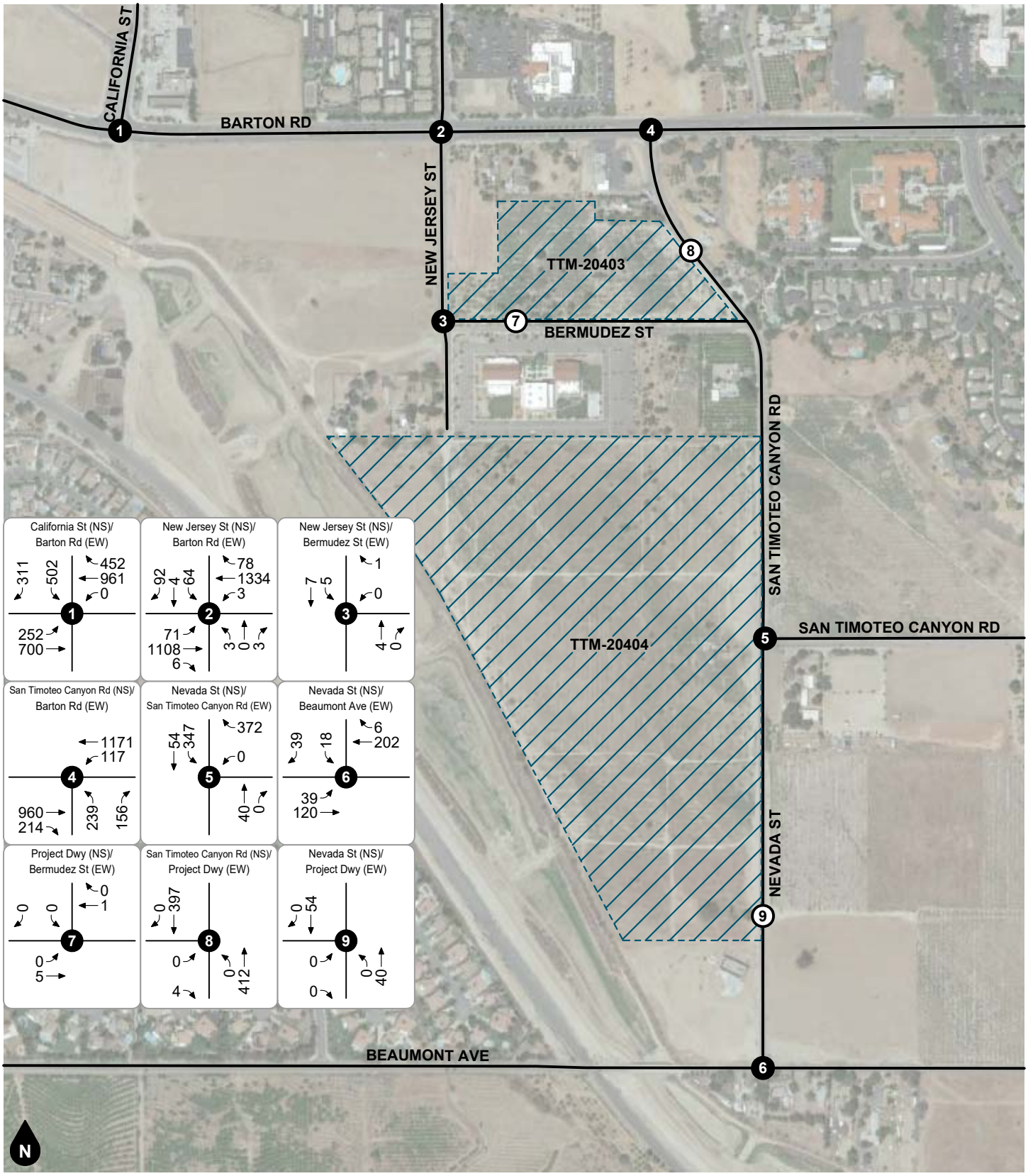
(#) Project Driveway

Figure 28
Existing Plus Project
PM Peak Hour Intersection Turning Movement Volumes

Legend

●## Vehicles Per Day (1,000's)

Figure 29
Opening Year (2024) Without Project Average Daily Traffic Volumes

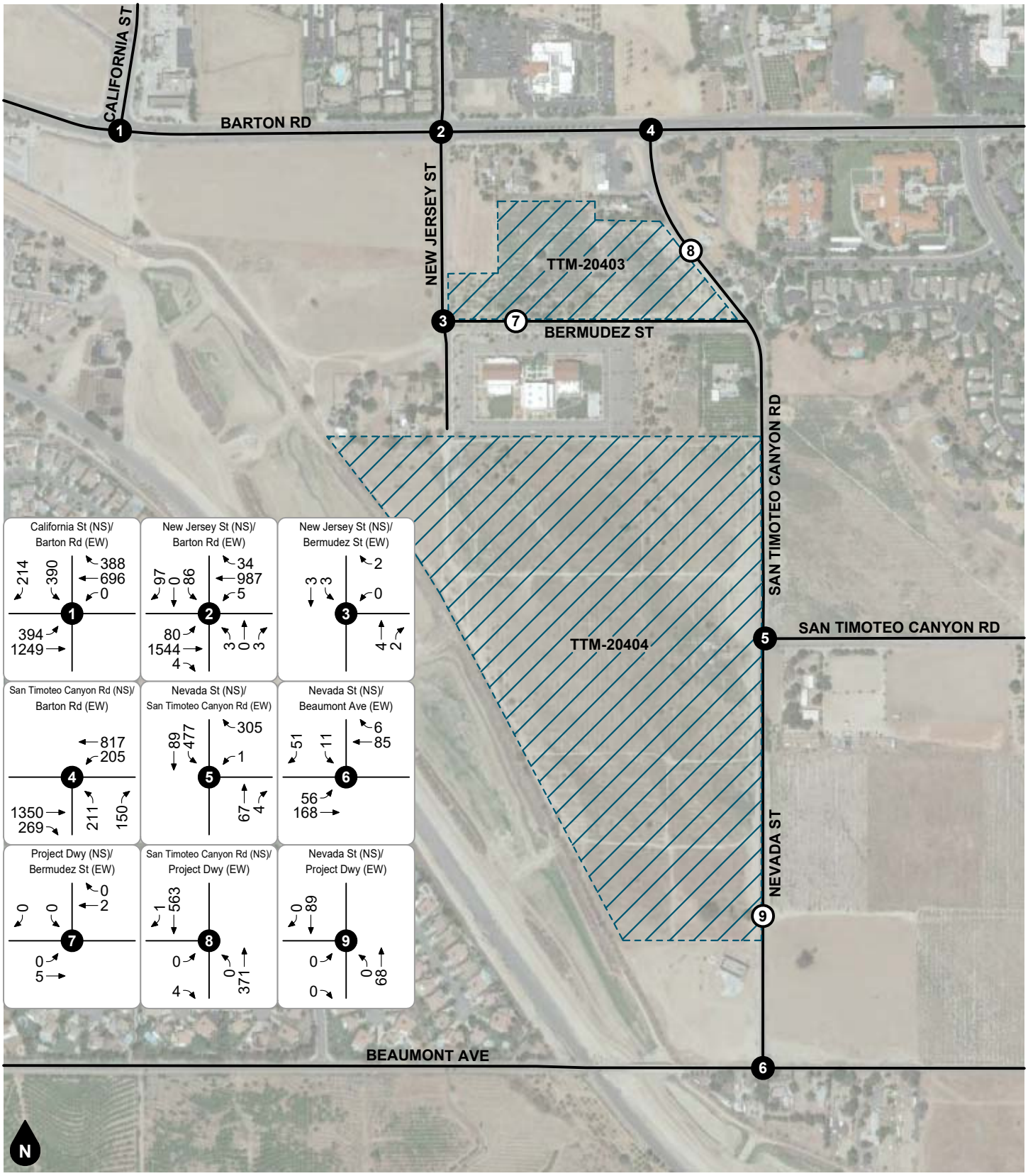


Legend

Study Intersection

Project Driveway

Figure 30
Opening Year (2024) Without Project
AM Peak Hour Intersection Turning Movement Volumes

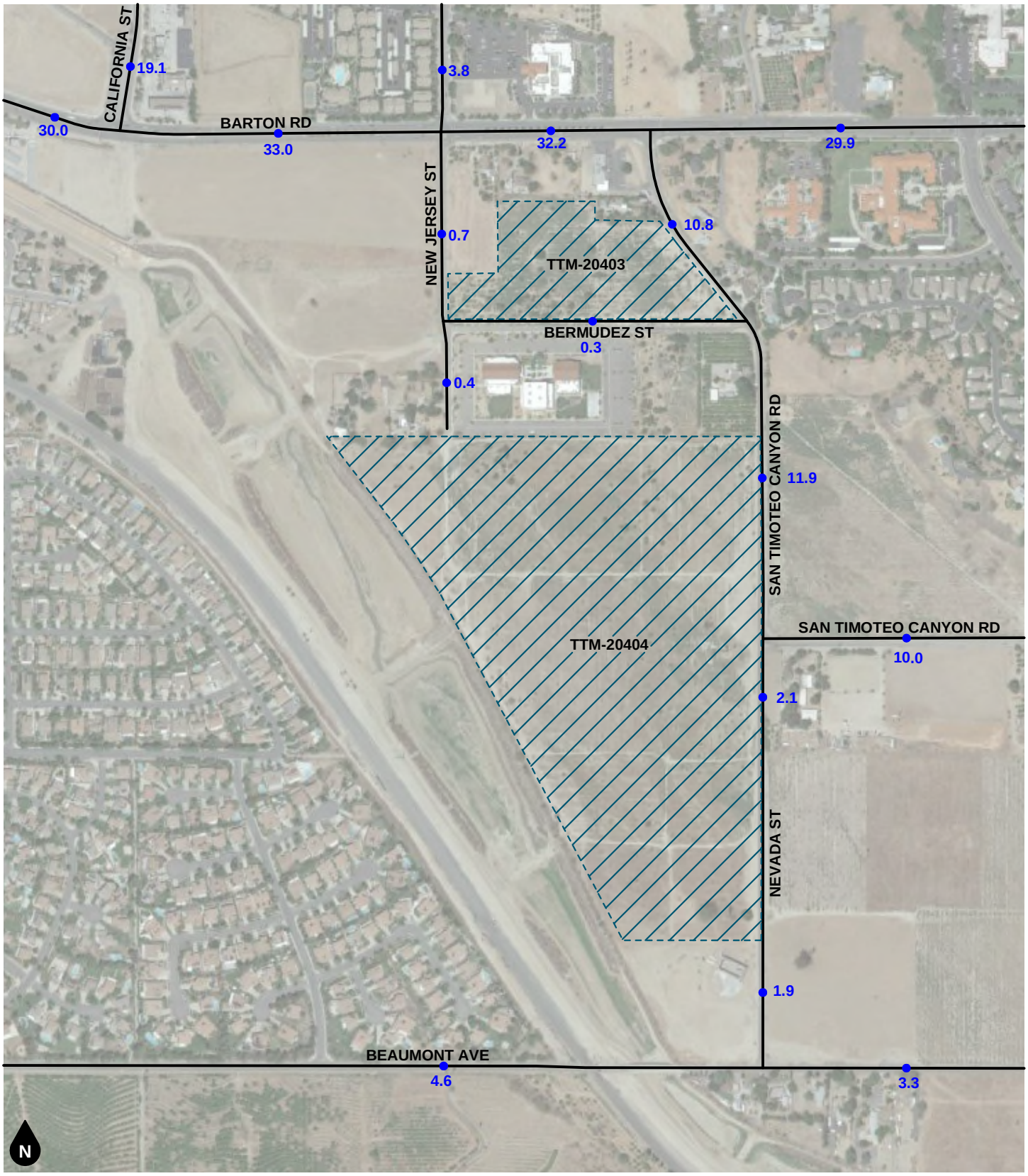


Legend

(#) Study Intersection

(#) Project Driveway

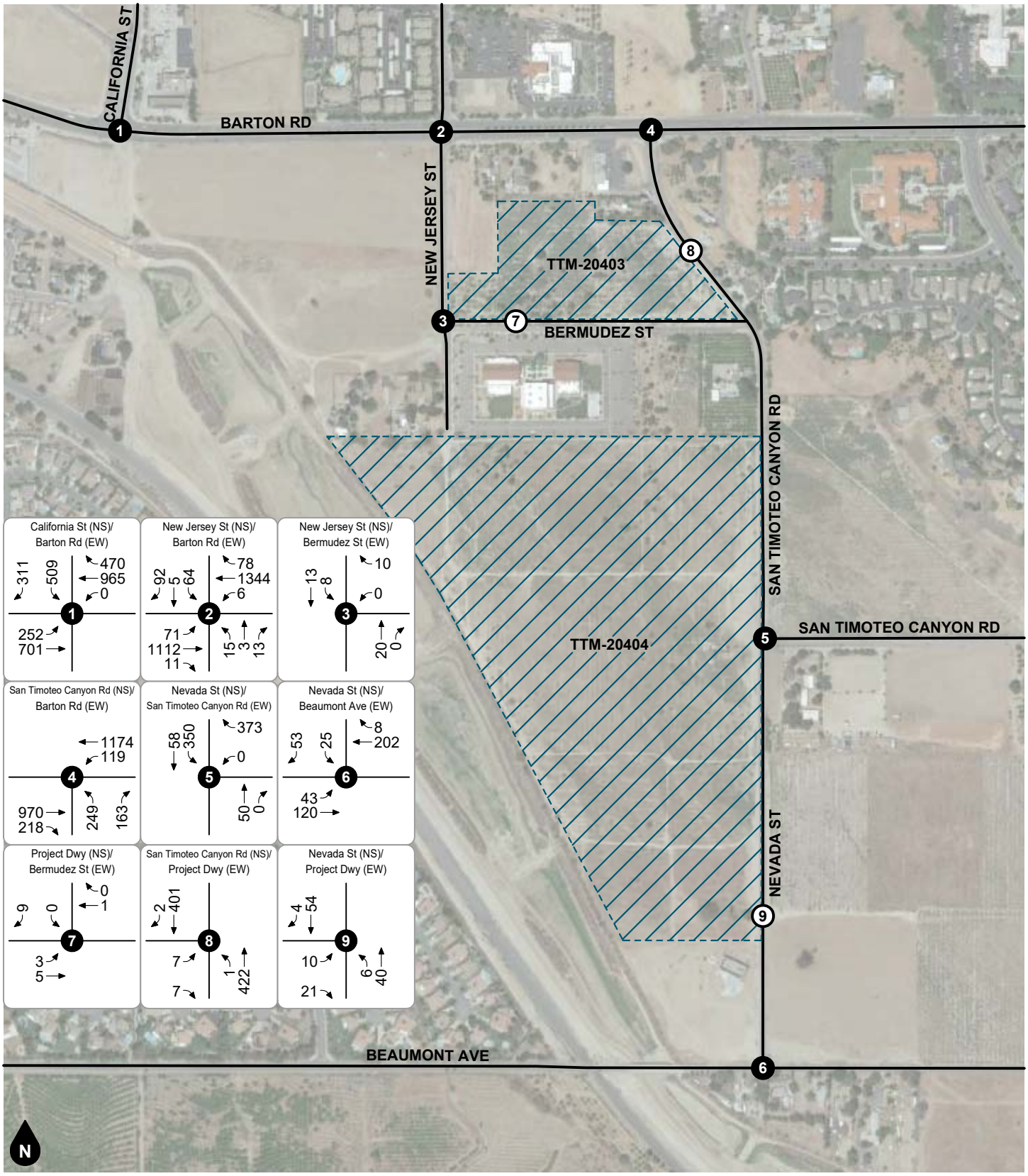
Figure 31
Opening Year (2024) Without Project
PM Peak Hour Intersection Turning Movement Volumes



Legend

●## Vehicles Per Day (1,000's)

Figure 32
Opening Year (2024) With Project Average Daily Traffic Volumes

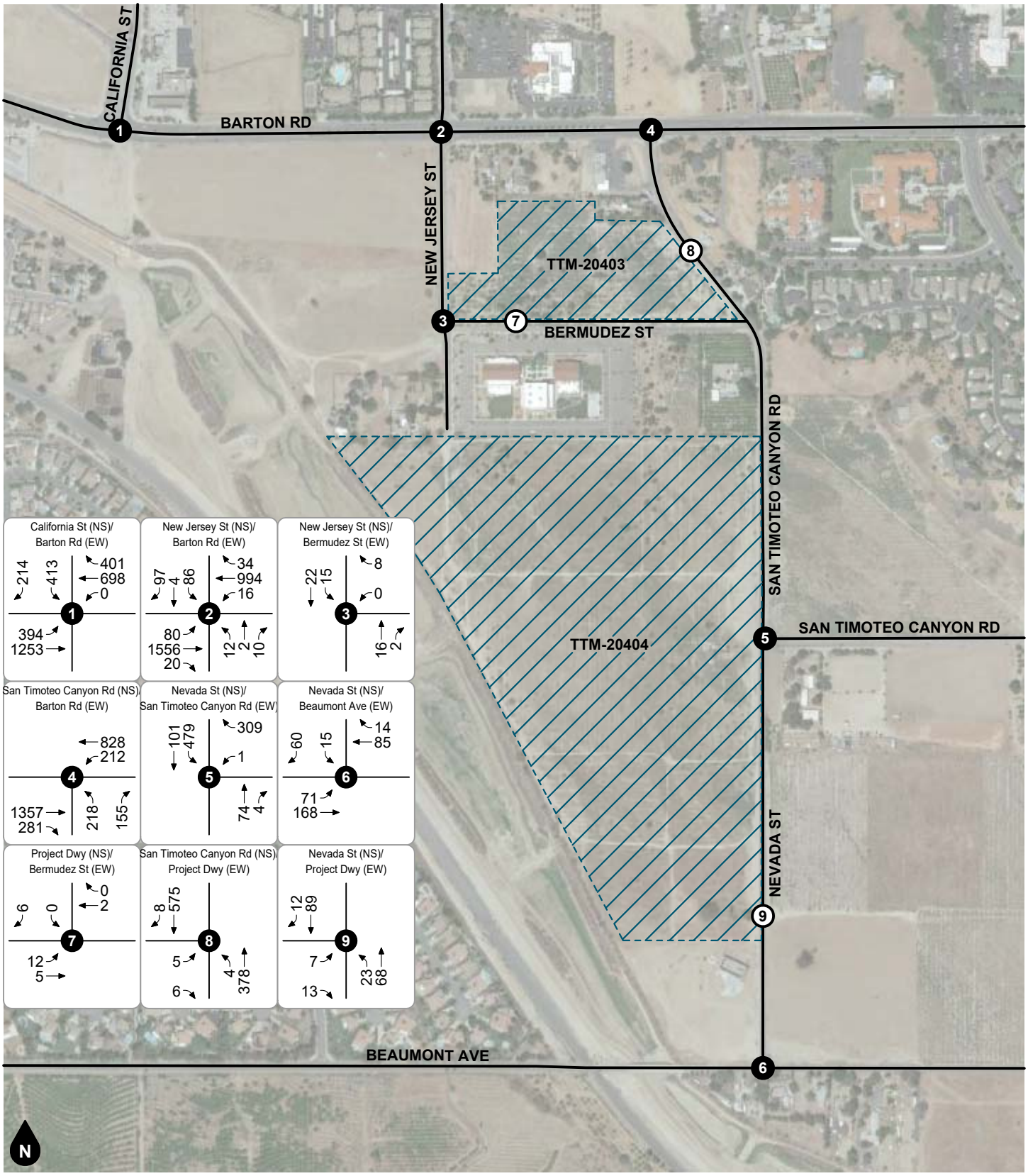


Legend

(#) Study Intersection

(#) Project Driveway

Figure 33
Opening Year (2024) With Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

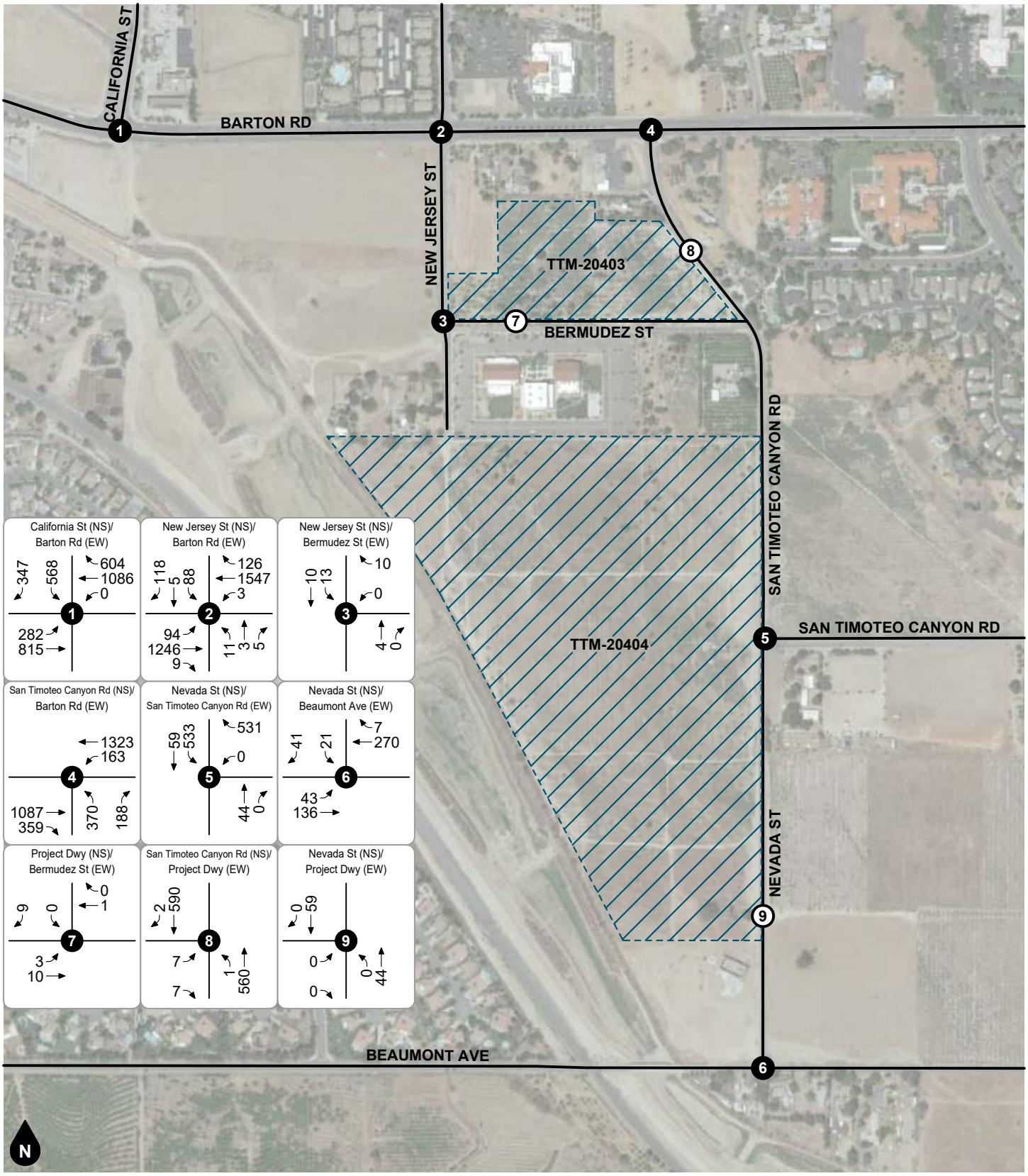
(#) Project Driveway

Figure 34
Opening Year (2024) With Project
PM Peak Hour Intersection Turning Movement Volumes

Legend

●## Vehicles Per Day (1,000's)

Figure 35
Year 2040 Without Project Average Daily Traffic Volumes

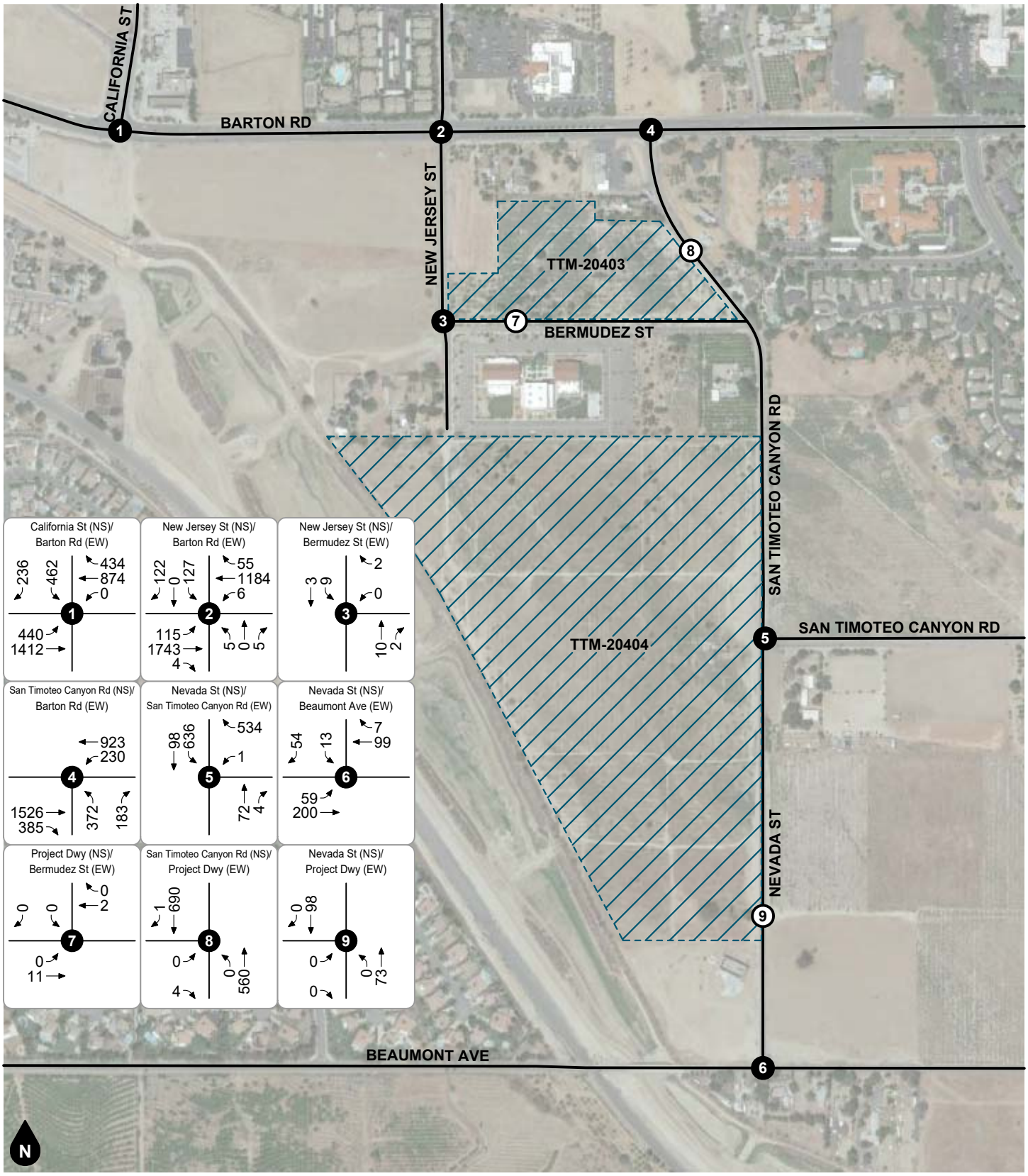


Legend

Study Intersection

(#) Project Driveway

Figure 36
Year 2040 Without Project
AM Peak Hour Intersection Turning Movement Volumes

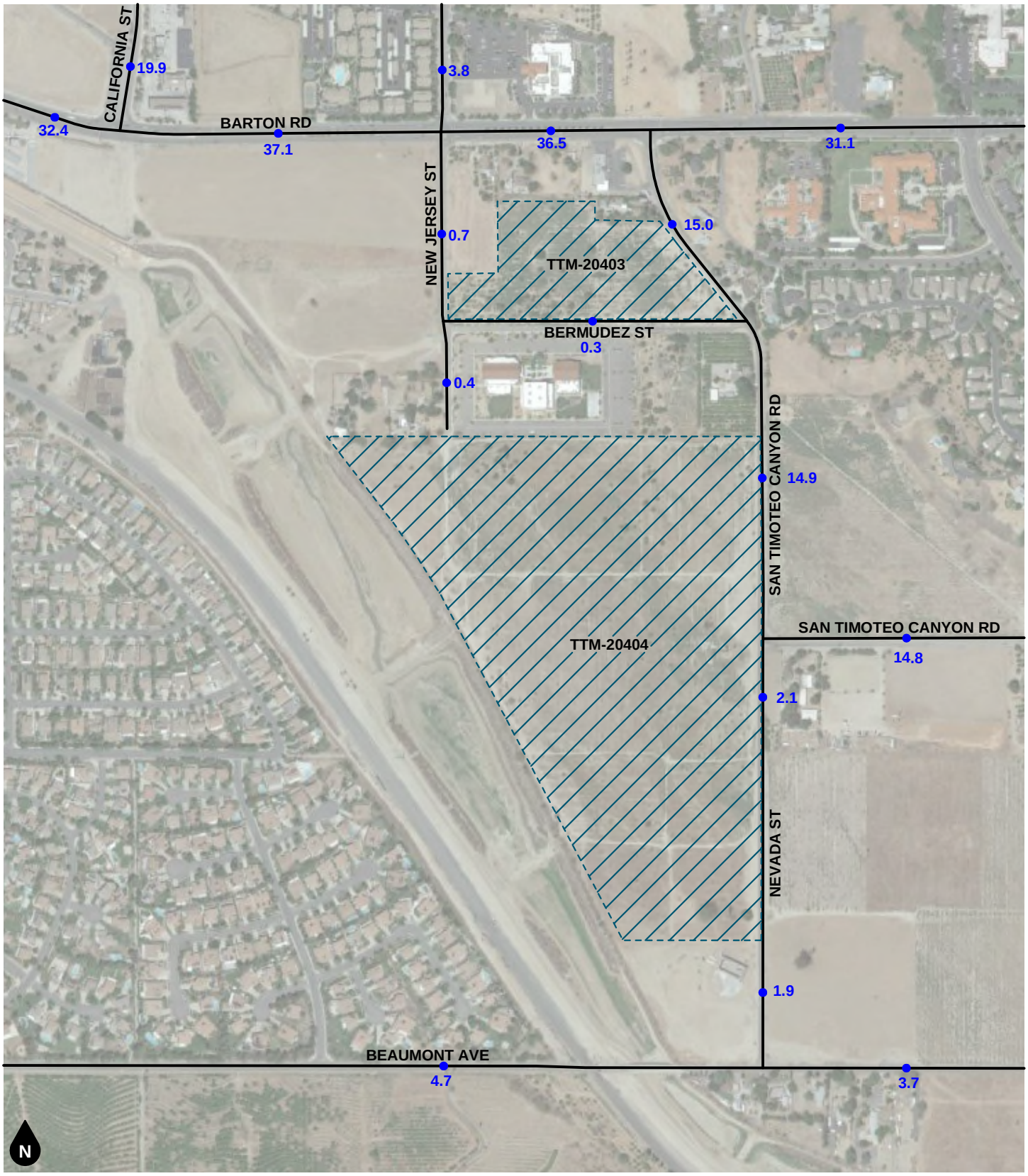


Legend

Study Intersection

(#) Project Driveway

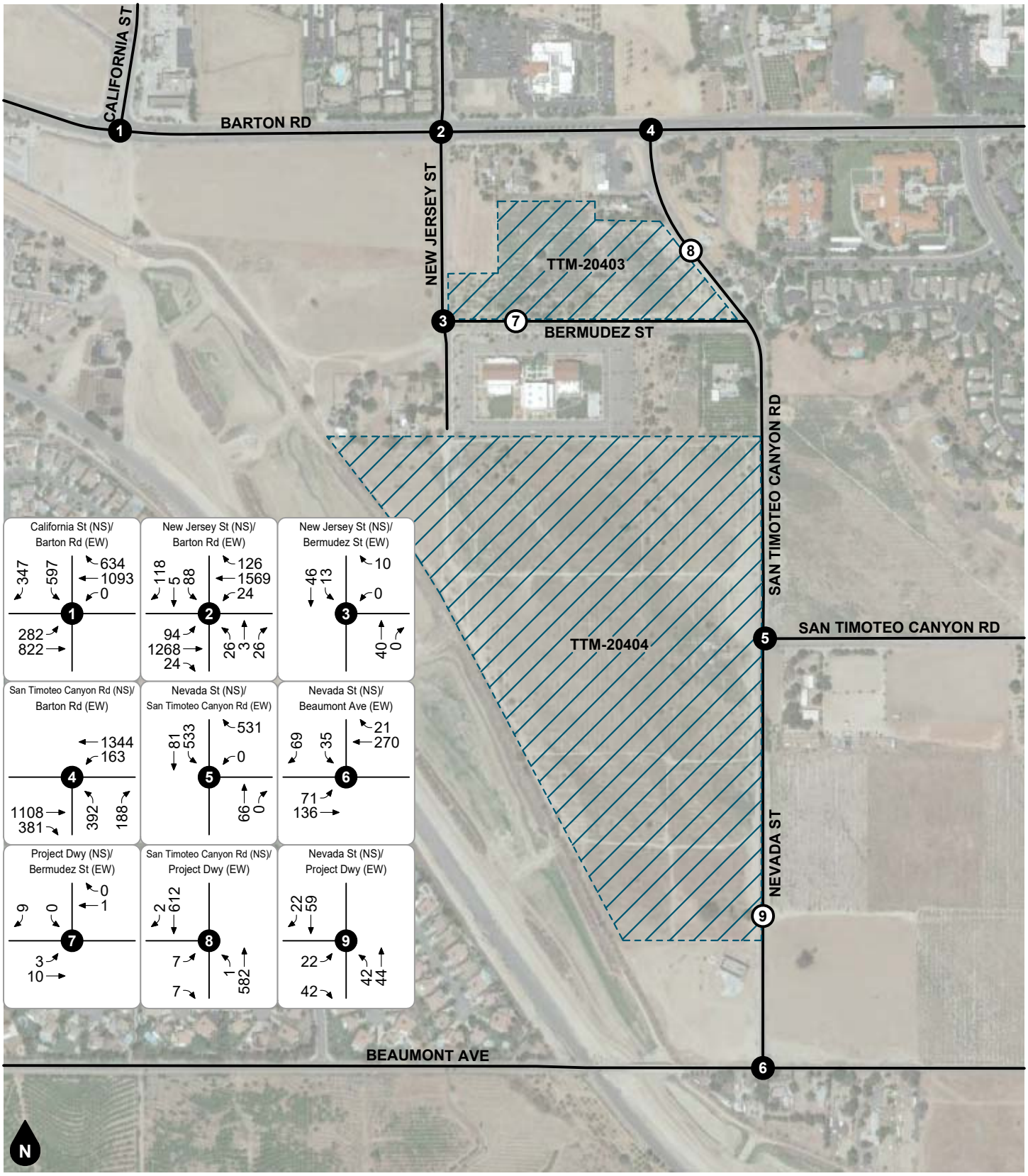
Figure 37
Year 2040 Without Project
PM Peak Hour Intersection Turning Movement Volumes



Legend

●## Vehicles Per Day (1,000's)

Figure 38
Year 2040 With Project Average Daily Traffic Volumes

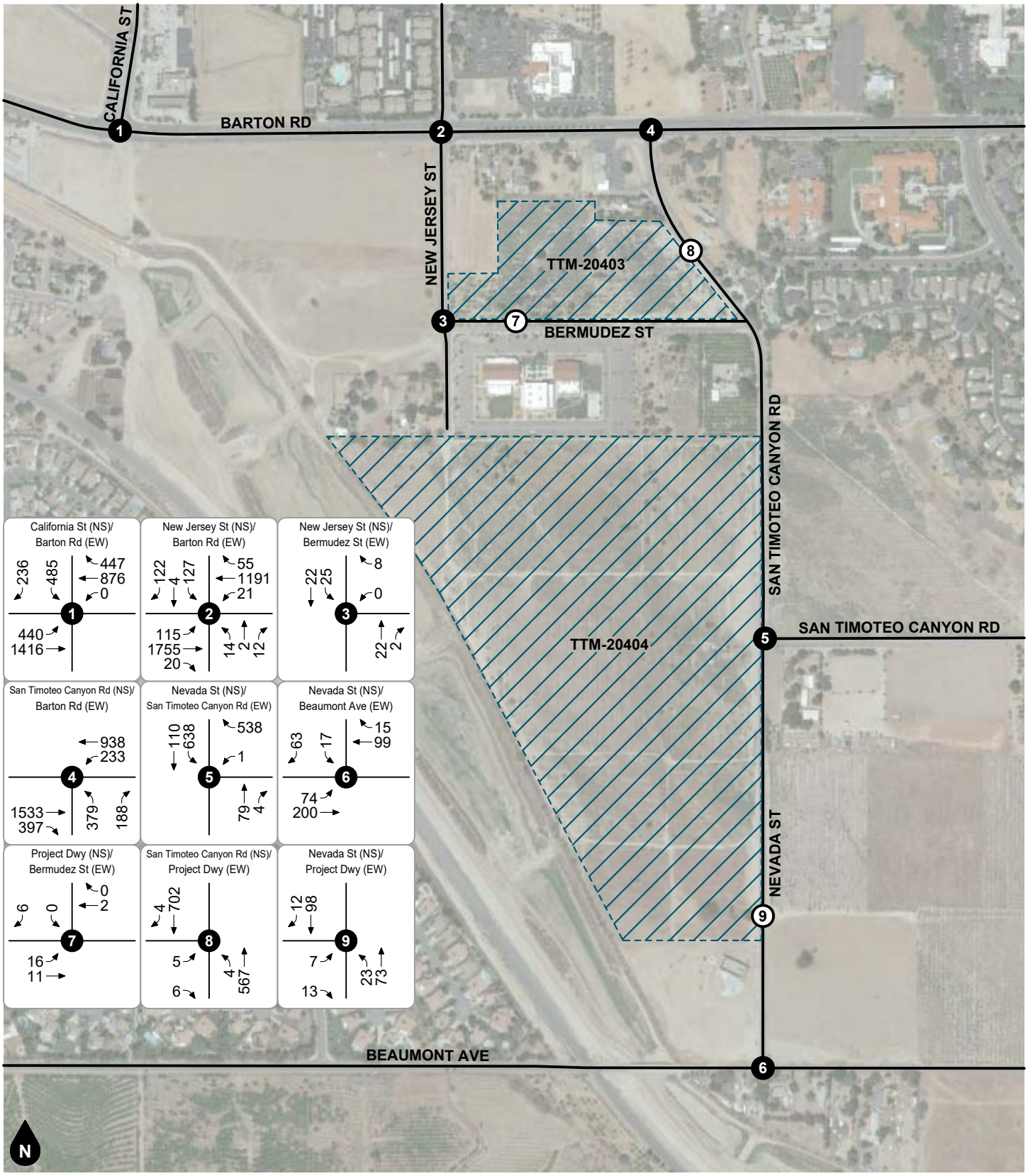


Legend

(#) Study Intersection

(#) Project Driveway

Figure 39
Year 2040 With Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

(#) Project Driveway

Figure 40
Year 2040 With Project
PM Peak Hour Intersection Turning Movement Volumes

6. FUTURE LEVELS OF SERVICE ANALYSIS

Detailed intersection Level of Service calculation worksheets for each of the following analysis scenarios are provided in Appendix G.

Project design features, such as improvements necessary to provide project site access, are assumed to be constructed by the proposed project and are described in further detail in the Site Access & Circulation section presented later in this report.

EXISTING PLUS PROJECT

The study intersection Levels of Service for Existing Plus Project conditions are shown in Table 5. As shown in Table 5, the study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Existing Plus Project conditions. Therefore, the proposed project is forecast to result in no project-related Level of Service deficiencies at the study intersections for the Existing Plus Project scenario.

OPENING YEAR (2024) WITHOUT PROJECT

The study intersection Levels of Service for Opening Year (2024) Without Project conditions are shown in Table 6. As shown in Table 6, the study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Opening Year (2024) Without Project conditions.

OPENING YEAR (2024) WITH PROJECT

The study intersection Levels of Service for Opening Year (2024) With Project conditions are shown in Table 7. As shown in Table 7, the study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Opening Year (2024) With Project conditions. Therefore, the proposed project is forecast to result in no project-related Level of Service deficiencies at the study intersections for the Opening Year (2024) With Project scenario.

YEAR 2040 WITHOUT PROJECT

The study intersection Levels of Service for Year 2040 Without Project conditions are shown in Table 8. As shown in Table 8, the study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Year 2040 Without Project conditions, except for the following study intersection that is forecast to operate at Levels of Service D or worse during peak hours:

5. Nevada Street (NS) at San Timoteo Canyon Road (EW) (D-AM / E-PM peak hour)

The installation of a traffic signal is recommended at the Nevada Street (NS) at San Timoteo Canyon Road intersection. The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours with improvements.

YEAR 2040 WITH PROJECT

The study intersection Levels of Service for Year 2040 With Project conditions are shown in Table 9. As shown in Table 9, the study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Year 2040 With Project conditions, except for the following study intersection that is forecast to operate at Levels of Service D or worse during peak hours:

5. Nevada Street (NS) at San Timoteo Canyon Road (EW) (D-AM / E-PM peak hour)

The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours with the previously listed improvements.

Traffic Signal Warrant Analysis

The potential need for installation of a traffic signal at crossroad stop control study intersections was evaluated based on the California Manual on Uniform Traffic Control Devices ("California MUTCD", November 2014), Section 4C-101, peak hour volume warrant (Warrant 3). The California MUTCD states that a traffic control signal should not be installed unless one or more warrants are satisfied. Application of the traffic signal warrants should be based on engineering judgement and satisfaction of one or more traffic signal warrants shall not in itself require the installation of a traffic signal.

A traffic signal is projected to be warranted at the following study intersection based upon the California Manual on Uniform Traffic Control Devices (2014), peak hour volume warrant (Warrant 3):

5. Nevada Street (NS) at San Timoteo Canyon Road (EW)

Traffic signal warrant worksheets are provided in Appendix H.

Table 5
Existing Plus Project Intersection Levels of Service

ID	Study Intersection	Traffic Control[1]	Existing Plus Project			
			AM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS
1.	California Street at Barton Road	TS	28.2	C	20.2	C
2.	New Jersey Street at Barton Road	TS	10.0	A	11.9	B
3.	New Jersey Street at Bermudez Street	CSS	8.5	A	8.4	A
4.	San Timoteo Canyon Rd at Barton Road	TS	13.9	B	20.6	C
5.	Nevada Street at San Timoteo Canyon Rd	CSS	17.7	C	18.1	C
6.	Nevada Street at Beaumont Avenue	CSS	10.8	B	9.6	A
7.	Project Access (F) at Bermudez Street	CSS	8.3	A	8.3	A
8.	San Timoteo Canyon Rd at Project Access (G)	CSS	13.4	B	14.3	B
9.	Nevada Street at Project Access (B)	CSS	8.8	A	9.0	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.

(3) LOS = Level of Service

(4) The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours; therefore, the proposed project is forecast to result in no project-related Level of Service deficiencies at the study intersections.

Table 6
Opening Year (2024) Intersection Levels of Service

ID	Study Intersection	Traffic Control[1]	Opening Year (2024) Without Project			
			AM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS
1.	California Street at Barton Road	TS	30.3	C	22.4	C
2.	New Jersey Street at Barton Road	TS	10.3	B	12.2	B
3.	New Jersey Street at Bermudez Street	CSS	8.3	A	8.3	A
4.	San Timoteo Canyon Rd at Barton Road	TS	14.1	B	21.9	C
5.	Nevada Street at San Timoteo Canyon Rd	CSS	18.1	C	21.0	C
6.	Nevada Street at Beaumont Avenue	CSS	10.6	B	9.6	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.

(3) LOS = Level of Service

Table 7
Opening Year (2024) With Project Intersection Levels of Service

ID	Study Intersection	Traffic Control[1]	Opening Year (2024) With Project			
			AM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS
1.	California Street at Barton Road	TS	30.5	C	22.9	C
2.	New Jersey Street at Barton Road	TS	10.8	B	13.2	B
3.	New Jersey Street at Bermudez Street	CSS	8.5	A	8.4	A
4.	San Timoteo Canyon Rd at Barton Road	TS	14.5	B	22.6	C
5.	Nevada Street at San Timoteo Canyon Rd	CSS	18.8	C	22.0	C
6.	Nevada Street at Beaumont Avenue	CSS	10.9	B	9.9	A
7.	Project Access (F) at Bermudez Street	CSS	8.3	A	8.3	A
8.	San Timoteo Canyon Rd at Project Access (G)	CSS	13.9	B	15.3	C
9.	Nevada Street at Project Access (B)	CSS	8.9	A	9.2	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.

(3) LOS = Level of Service

(4) The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours; therefore, the proposed project is forecast to result in no project-related Level of Service deficiencies at the study intersections.

Table 8
Year (2040) Intersection Levels of Service

ID	Study Intersection	Traffic Control[1]	Year (2040) Without Project			
			AM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS
1.	California Street at Barton Road	TS	25.6	C	24.2	C
2.	New Jersey Street at Barton Road	TS	12.5	B	14.7	B
3.	New Jersey Street at Bermudez Street	CSS	8.4	A	8.4	A
4.	San Timoteo Canyon Rd at Barton Road	TS	17.6	B	30.5	C
5.	Nevada Street at San Timoteo Canyon Rd	CSS	28.5	D	43.6	E
	With Improvements	TS	27.5	C	29.4	C
6.	Nevada Street at Beaumont Avenue	CSS	11.2	B	9.7	A

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.

(3) LOS = Level of Service

Table 9
Year (2040) With Project Intersection Levels of Service Operations Assessment

ID	Study Intersection	Traffic Control[1]	Year (2040) Without Project				Year (2040) With Project				AM Peak Hour		PM Peak Hour	
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour					
			Delay[2]	LOS[3]	Delay[2]	LOS	Delay[2]	LOS[3]	Delay[2]	LOS	Change	Project Deficiency?	Change	Project Deficiency?
1.	California Street at Barton Road	TS	25.6	C	24.2	C	26.7	C	24.7	C	+1.1	NO	+0.5	NO
2.	New Jersey Street at Barton Road	TS	12.5	B	14.7	B	13.8	B	16.1	B	+1.3	NO	+1.4	NO
3.	New Jersey Street at Bermudez Street	CSS	8.4	A	8.4	A	8.5	A	8.4	A	+0.1	NO	+0.0	NO
4.	San Timoteo Canyon Rd at Barton Road	TS	17.6	B	30.5	C	18.5	B	31.2	C	+0.9	NO	+0.7	NO
5.	Nevada Street at San Timoteo Canyon Rd	CSS	28.5	D	43.6	E	33.2	D	48.0	E	+4.7	YES[4]	+4.4	YES
	With Improvements	TS	27.5	C	29.4	C	27.4	C	29.2	C	-0.1	NO	-0.2	NO
6.	Nevada Street at Beaumont Avenue	CSS	11.2	B	9.7	A	12.2	B	10.0	A	+1.0	NO	+0.3	NO
7.	Project Access (F) at Bermudez Street	CSS	-		-		8.3	A	8.3	A	+8.3	NO	+8.3	NO
8.	San Timoteo Canyon Rd at Project Access	CSS	-		-		19.0	C	20.1	C	+19.0	NO	+20.1	NO
9.	Nevada Street at Project Access (B)	CSS	-		-		9.3	A	9.2	A	+9.3	NO	+9.2	NO

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.

(3) LOS = Level of Service

7. SITE ACCESS & ON-SITE CIRCULATION

This section describes the project site access and on-site circulation. Vehicular access would be provided via project access intersections with Bermudez Street, San Timoteo Canyon Road and Nevada Street.

PROJECT DESIGN FEATURES

This analysis assumes the following improvements will be constructed by the project to provide project site access:

7. Project Access (F) (NS) at Bermudez Street (EW)
- Install southbound stop control.
- Construct the southbound approach to consist of one shared left/right turn lane.

8. San Timoteo Canyon Road (NS) at Project Access (G) (EW)
- Install eastbound stop control.
- Construct the westbound approach to consist of one shared left/right turn lane.

9. Nevada Street (NS) at Project Access (B) (EW)
- Install eastbound stop control.
- Construct the eastbound approach to consist of one shared left/right turn lane.

This analysis also assumes the project shall comply with the following conditions as part of the City of Loma Linda standard development review process to ensure adequate geometric design and emergency access:

- Site-adjacent roadways shall be constructed or repaired at their ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as otherwise required by the City of Loma Linda.

- All on-site and off-site roadway design, traffic signing and striping, and traffic control improvements relating to the proposed project shall be constructed in accordance with applicable State/Federal engineering standards and to the satisfaction of the City of Loma Linda.

- The final grading, landscaping, and street improvement plans shall demonstrate that sight distance requirements are met in accordance with applicable City of Loma Linda/California Department of Transportation sight distance standards.

- A construction work site traffic control plan shall comply with State standards set forth in the California *Manual of Uniform Traffic Control Devices* and shall be submitted to the County for review and approval prior to the issuance of a grading permit or start of construction. The plan shall identify any roadway, sidewalk, bike route, or bus stop closures and detours as well as haul routes and hours of operation. All construction related trips shall be restricted to off-peak hours to the extent possible.

- The project shall comply with the City of Loma Linda municipal parking requirements which will be reviewed as a part of the standard development review process.

SITE ACCESS QUEUING ANALYSIS

Table 10 summarizes the results of a queue analysis for key turn movements providing project site access. The forecasted queue lengths shown in Table 10 are based on the Highway Capacity Manual 95th-percentile back-of-queue methodology as reported in the delay/Level of Service worksheets (see Appendix G). As shown

in Table 10, the traffic volumes for project site access locations is forecast to operate within the available storage length during the peak hours for the evaluated scenarios conditions. Therefore, the proposed project is forecast to result in no project-related Level of Service deficiencies at the study intersections for evaluated scenarios.

Table 10
Study Area Queuing Analysis Summary

ID	Intersection	Approach	Lane	Storage Length (Feet)[2]	95th-Percentile Queue Length (Feet)[1]						Adequate Storage Provided		
					Existing		Opening Year (2024) With Project		Year (2040) With Project				
					AM	PM	AM	PM	AM	PM	Existing	2024	OY2
5.	Nevada Street at San Timoteo Canyon Rd	Northbound	Shared	1000	<20	<20	<20	30	40	65	YES	YES	YES
		Southbound	Shared	1000	<20	<20	<20	<20	<20	<20	YES	YES	YES
		Westbound	Shared	300	<20	<20	<20	<20	<20	<20	YES	YES	YES
7.	Project Access (F) at Bermudez Street	Southbound	Shared	75	-	-	<20	<20	<20	<20	YES	YES	YES
		Eastbound	Shared	75	-	-	<20	<20	<20	<20	YES	YES	YES
		Westbound	Shared	75	-	-	<20	<20	<20	<20	YES	YES	YES
8.	San Timoteo Canyon Rd at Project Access (G)	Northbound	Left	75	-	-	<20	<20	<20	<20	YES	YES	YES
		Northbound	Thru	75	-	-	<20	<20	<20	<20	YES	YES	YES
		Eastbound	Shared	75	-	-	<20	<20	<20	<20	YES	YES	YES
9.	Nevada Street at Project Access (B)	Northbound	Shared	75	-	-	<20	<20	<25	<25	YES	YES	YES
		Southbound	Shared	75	-	-	<20	<20	<25	<25	YES	YES	YES
		Eastbound	Shared	75	-	-	<20	<20	<25	<25	YES	YES	YES
5.	Nevada Street at San Timoteo Canyon Rd With Improvements	Northbound	Shared	1000	-	-	-	-	50	90	YES	YES	YES
		Southbound	Left	1000	-	-	-	-	525	690	YES	YES	YES
		Southbound	Thru	1000	-	-	-	-	<20	35	YES	YES	YES
		Westbound	Left	150	-	-	-	-	<20	<20	YES	YES	YES
		Westbound	Right	300	-	-	-	-	285	300	YES	YES	YES

Notes:

(1) The forecast 95th-percentile queue lengths shown in the delay calculation worksheets have been rounded up to nearest 5-foot increment.

(2) Length of turning lane storage or distance to the adjacent driveway (existing or proposed future development).

8. MITIGATION MEASURES

As mitigation for the identified improvements necessary to maintain acceptable Levels of Service and mitigate project impacts, the proposed project shall contribute through an adopted traffic impact fee program in addition to any fair share contributions shown within the traffic impact analysis which is not covered within this fee program.

Since the identified improvements are necessary to address a degradation of Level of Service for already deficient intersection operations under "without project" traffic conditions, the project shall pay its fair share of fees to an applicable program for the required mitigation measure improvements.

SUMMARY OF IMPROVEMENTS

The proposed project is forecast to result in no significant traffic impacts at the study intersections for Year 2040 With and Without Project conditions, except for the following study intersection that is projected to operate at unacceptable Level of Service without improvements.

5. Nevada Street (NS) at San Timoteo Canyon Road (EW)

The following improvement is required with project development within the study area to maintain an acceptable Level of Service at the study intersection:

5. Nevada Street (NS) at San Timoteo Canyon Road (EW)
   - Install a traffic signal.
   - Construct one southbound left turn lane.
   - Construct one westbound right turn lane.

Improvements at the project driveways are project design features which shall be constructed by the project. Site-adjacent roadway improvements shall be constructed in conjunction with the project.

FAIR SHARE ANALYSIS

The project fair share is based on the proportion of project peak hour traffic volume contributed to the improvement location relative to the total new peak hour traffic volume for General Plan Buildout (Year 2040) With Project traffic conditions. The cost estimates for the identified improvements have been obtained from the County of San Bernardino Congestion Management Program (2003 Update);Error! Reference source not found..

5. Nevada Street (NS) at San Timoteo Canyon Road (EW)
   - Install a traffic signal.
   - Construct one southbound left turn lane.
   - Construct one westbound right turn lane.

The project proportional intersection trip contributions have been calculated in Table 11 for General Plan Buildout (Year 2040) With Project traffic conditions. The project fair share shown above represents a rough order of magnitude; it is intended only for the discussion purposes of this traffic impact analysis and does not imply any legal responsibility or formula for contributions or mitigation.

DEVELOPMENT IMPACT FEE

The proposed project shall contribute towards the City of Loma Linda Development Impact Fee program as adopted in 2021 (Resolution Number 2841). The Development Impact Fee provides a funding mechanism for

arterial streets, traffic signals, interchange improvements as well as emergency services. The purpose of such fees is to minimize, to the greatest extent practicable, the impact that new development has on the city's public services and public facilities. Toward that end, the city intends that applicants for such development projects pay their fair share of the costs of providing such public services and public facilities. Unless otherwise approved by the City, all development projects are required to pay the Development Impact Fee as a condition of development.

CONSTRUCTION TRAFFIC CONTROL MEASURES

A construction work site traffic control plan shall be submitted to the City for review and approval prior to the start of any construction work. The plans shall show the location of any roadway, sidewalk, bike route, bus stop or driveway closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. Temporary traffic controls used around the construction area should adhere to the standards set forth in the *California Manual of Uniform Traffic Control Devices* (2014, including latest revisions) and construction activities should adhere to applicable local ordinances.

Site development would require the use of haul trucks during site clearing and excavation and the use of a variety of other construction vehicles throughout the construction work at the site. Transportation of heavy construction equipment and or materials, which requires the use of oversized vehicles, will require the appropriate transportation permit.

Table 11
Fair Share Analysis

ID	Study Intersection	Estimated Construction Cost[1]	Peak Hour	Peak Hour Volume					Project % at Intersection[2]	Project Fair Share Cost
				Existing	Year (2040) With Project	Project Trips	New Trips	Project % of New Trips		
1.	California Street at Barton Road	NA[3]	AM	3,016	3,775	30	759	4.0%	5.3%	-
			PM	3,104	3,900	42	796	5.3%		
2.	New Jersey Street at Barton Road	NA[3]	AM	2,662	3,371	48	709	6.8%	9.1%	-
			PM	2,691	3,438	68	747	9.1%		
3.	New Jersey Street at Bermudez Street	NA[3]	AM	17	109	34	92	37.0%	75.4%	-
			PM	14	79	49	65	75.4%		
4.	San Timoteo Canyon Rd at Barton Road	NA[3]	AM	2,756	3,576	36	820	4.4%	6.0%	-
			PM	2,847	3,668	49	821	6.0%		
5.	Nevada Street at San Timoteo Canyon Rd	$800,000	AM	769	1,211	18	442	4.1%	4.9%	$38,835
			PM	855	1,370	25	515	4.9%		
6.	Nevada Street at Beaumont Avenue	NA[3]	AM	387	602	27	215	12.6%	19.5%	-
			PM	283	468	36	185	19.5%		
7.	Project Access (F) at Bermudez Street	Project Feature	AM	6	23	12	17	70.6%	70.6%	-
			PM	7	35	18	28	64.3%		
8.	San Timoteo Canyon Rd at Project Access (G)	Project Feature	AM	769	1,211	27	442	6.1%	8.5%	-
			PM	851	1,288	37	437	8.5%		
9.	Nevada Street at Project Access (B)	Project Feature	AM	65	231	41	166	24.7%	39.6%	-
			PM	87	226	55	139	39.6%		
Total		$800,000								$38,835

Notes:

(1) Cost estimate based on values from the San Bernardino County Transportation Authority *Preliminary Construction Cost Estimates For Congestion Management Program* (2003). Costs estimates are sensitive to the quantity and location of work specified for a given installation. These values represent the relative magnitude of the cost and should be verified through the bidding process.

(2) Project share of new trips shown are the greater of the AM or PM percent contribution.

(3) For intersections with no significant impact project percentages are shown for information purposes only.

9. CONCLUSIONS

This section summarizes the findings, operational improvements (if any), and recommendations identified and described in previous sections of this study. Figure 41 summarizes the recommended improvements.

PROJECT TRIP GENERATION

Annexation Area

The proposed annex area is forecast to generate approximately 4,429 daily trips, including 382 trips during the AM peak hour and 1,136 trips during the PM peak hour. The proposed annexation/zone change is forecast to result in a net of 1,189 more daily trips, including 87 more trips during the AM peak hour and 118 more trips during the PM peak hour.

Residential Projects TTM-20403 and TTM-20404

The proposed project is forecast to generate approximately 1,188 daily trips, including 88 during the AM peak hour and 119 trips during the PM peak hour.

LEVEL OF SERVICE ANALYSIS

The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Existing, Existing Plus Project, Opening Year (2024) Without Project and Opening Year (2024) With Project conditions. Therefore, the proposed project is forecast to result in no project-related Level of Service deficiencies at the study intersections for the evaluated scenarios.

The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Year 2040 Without Project conditions, with the exception of the following study intersection that is forecast to operate at Levels of Service D or worse during peak hours:

5. Nevada Street (NS) at San Timoteo Canyon Road (EW) (D-AM / E-PM peak hour)

The installation of a traffic signal is recommended at the Nevada Street (NS) at San Timoteo Canyon Road intersection. The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours with improvements.

The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Year 2040 With Project conditions, with the exception of the following study intersection that is forecast to operate at Levels of Service D or worse during peak hours:

5. Nevada Street (NS) at San Timoteo Canyon Road (EW) (D-AM / E-PM peak hour)

The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours with the previously listed improvements.

SITE ACCESS QUEUING ANALYSIS

The traffic volumes for project site access locations are forecast to operate within the available storage length during the peak hours for the evaluated scenarios conditions. Therefore, the proposed project is forecast to result in no project-related Level of Service deficiencies at the study intersections for evaluated scenarios.

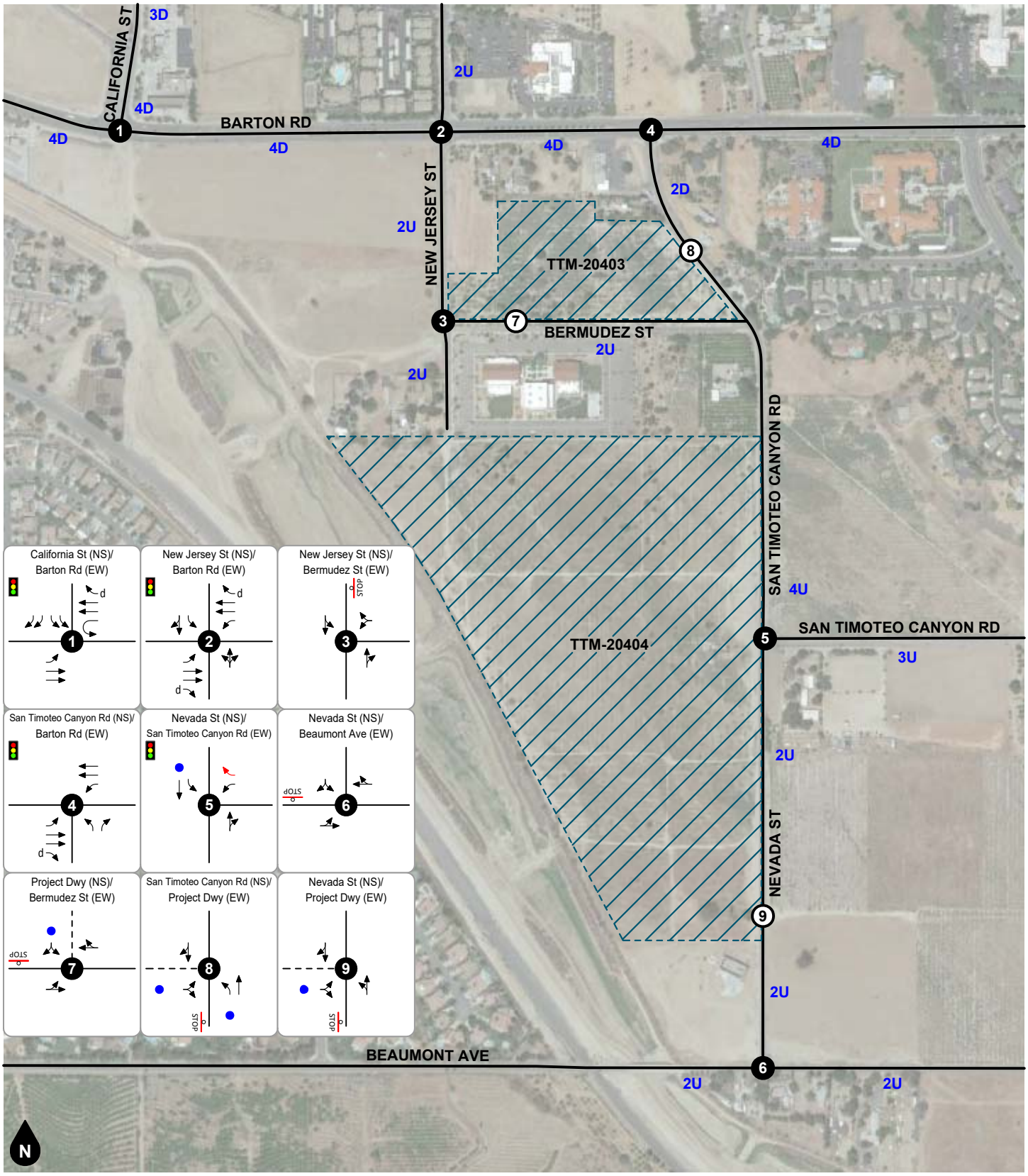
MITIGATION MEASURES

The following improvement is required for Year 2040 Without and With Project conditions to maintain an acceptable Level of Service at the study intersection:

5. Nevada Street (NS) at San Timoteo Canyon Road (EW)
    - Install a traffic signal.
    - Construct one southbound left turn lane.
    - Construct one westbound right turn lane.

Figure 41 graphically illustrates the identified improvements. Improvements at the project driveways are project design features which shall be constructed by the project. Site-adjacent improvements shall be constructed in conjunction with the project.

The project shall pay the appropriate transportation Development Impact Fee(s) as required by the City, as well as any fair share cost included in the report.



Legend

- Traffic Signal
- Stop Sign
- #D #-Lane Divided Roadway
- #U #-Lane Undivided Roadway
- Existing Lane
- d De Facto Right Turn Lane
- Project Driveway
- Project Improvement
- Improvement By Others

Figure 41
Recommended Lane Geometry and Intersection Traffic Controls

APPENDICES

Appendix A Glossary
Appendix B Scoping Agreement
Appendix C Intersection Count Worksheets
Appendix D Existing Volume Adjustment Factor Calculations
Appendix E Travel Demand Model Plots
Appendix F Post Processing Worksheets
Appendix G Intersection Level of Service Worksheets
Appendix H Traffic Signal Warrant Worksheets

APPENDIX A

GLOSSARY

ACRONYMS

AC	Acres
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
ICU	Intersection Capacity Utilization
GFA	Gross Floor Area
LOS	Level of Service
PCE	Passenger Car Equivalent
SP	Service Population
TSF	Thousand Square Feet
V/C	Volume/Capacity
VMT	Vehicle Miles Traveled

TERMS

ACTUATED SIGNAL CONTROL: A type of traffic signal control in which display of each phase depends on whether the corresponding phase detector has registered a service call or the phase is on recall.

ACTUATION: Detection of a roadway user that is forwarded to the signal controller.

AVERAGE DAILY TRAFFIC: The average 24-hour volume for a stated period divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A point of constriction along a roadway that limits the amount of traffic that can proceed downstream from its location.

CALL: An indication within a signal controller that a particular phase is waiting for service, either through actuation from a roadway user or phase recall.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass through a roadway facility during a specified period.

CHANNELIZATION: The separation of conflicting traffic movements by use of pavement markings, raised curbs, or other suitable means to facilitate free flow movement.

CLEARANCE INTERVAL: Equal to the yellow plus all-red time, if any, when a traffic signal changes between phases (i.e., the amount of time between the end of a green light from one movement to the beginning of a green light for the next).

COORDINATED SIGNAL CONTROL: A type of traffic signal control in which non-coordinated phases associated with minor movements are constrained such that the coordinated phases are served at a specific time during the signal cycle, thus maintaining the efficient progression of traffic flow along the major roadway.

CONTROL DELAY: The portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign). It includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay.

CORDON: An imaginary boundary line around or across a study area across which vehicles, persons, or other information can be collected for survey and analytical purposes.

CORNER SIGHT DISTANCE: The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic traveling at a given speed to radically alter their speed or trajectory.

CYCLE: A complete sequence of signal indications for all phases.

CYCLE LENGTH: The total time for a traffic signal to complete one full cycle.

DAILY CAPACITY: A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.

DELAY: The total additional travel time experienced by a roadway user (driver, passenger, bicyclist, or pedestrian) beyond that required to travel at a desired speed.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device used to count or determine the presence of a roadway user.

DESIGN SPEED: A speed used for purposes of designing horizontal and vertical alignments of a highway.

DIRECTIONAL SPLIT: The percent of two-way traffic traveling in a specified direction.

DIVERSION: The rerouting of traffic from a normal path of travel between two points, such as to avoid congestion or perform a secondary trip.

FREE FLOW: Traffic flow that is unaffected by a traffic control and/or or upstream or downstream conditions.

GAP: Time or distance between two vehicles measured from rear bumper of the front vehicle to front bumper of the second vehicle.

GAP ACCEPTANCE: The method by which a driver accepts an available gap in traffic to enter or cross the road.

HEADWAY: Time or distance between two successive vehicles measured from same point on both vehicles (i.e., front bumper to front bumper).

LEVEL OF SERVICE: A grading scale of quantitative performance measures representing the quality of service of a transportation facility or service from an average traveler's perspective.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MULTI-MODAL: More than one mode, such as automobile, transit, bicycle, and pedestrian.

OFFSET: The time interval between the beginning of a traffic signal cycle at one intersection and the beginning of signal cycle an adjacent intersection.

PLATOON: A set of vehicles traveling at similar speed and moving as a general group with clear separation between other vehicles ahead and behind.

PASSENGER CAR EQUIVALENT: A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.

PEDESTRIAN CLEARANCE INTERVAL: Also known as the "Flashing Don't Walk" interval, it signals the end of pedestrian entry into the crosswalk following the "Walk" indication and provides time for pedestrians who have already entered the crosswalk to finishing crossing.

PEAK HOUR: The hour within a day in which the maximum volume occurs.

PEAK HOUR FACTOR: The peak hour volume divided by the four times the peak 15-minute flow rate. This

PHASE: In traffic signals, the green, yellow, and red clearance intervals assigned to a specified traffic movement.

PRETIMED SIGNAL: A traffic signal operation in which the cycle length, phasing sequence, and phasing times are predetermined and fixed, regardless of actual demand for any given traffic movement. Also known as a fixed time signal.

PROGRESSION: The coordinated movement of vehicles through signalized intersections along a corridor.

QUEUE: The number of vehicles waiting at a service area such as a traffic signal, stop sign, or access gate.

QUEUE LENGTH: The length of vehicle queue, typically expressed in feet, waiting at a service area such as a traffic signal, stop sign, or access gate.

RECALL: A signal phasing operation in which a specified phase places a call to the signal controller each time a conflicting phase is served, thus ensuring the specified phase will be serviced again.

SEMI-ACTUATED CONTROL: A type of traffic signal control in which only the minor movements are provided detection.

SIGHT DISTANCE: The continuous length of roadway visible to a driver or roadway user.

STACKING DISTANCE: The length of area available behind a service area, such as a traffic signal or gate, for vehicle queuing to occur.

STOPPING SIGHT DISTANCE: The minimum distance required by the driver of a vehicle traveling at a given speed to bring the vehicle to a stop after an object on the road becomes visible, including reaction and response time.

TRIP OR TRIP END: The one-directional movement of a person or vehicle. Every trip has an origin and a destination at its respective ends (i.e., trip ends). In terms of site trip generation, the same vehicle entering and exiting a site generates two trips: one inbound trip and one outbound trip.

TRIP GENERATION RATE: The rate at which a land use generates trips per the specified land use variable, such per dwelling unit or per thousand square feet.

TRUCK: A heavy motor vehicle generally used for transporting goods.

VEHICLE MILES TRAVELED: A measure of the amount and distance of automobile travel essentially calculated as the sum of each trip times the trip length.

APPENDIX B

SCOPING AGREEMENT

Perrie Ilercil

From: Jeff Peterson <JPeterson@lomalinda-ca.gov>
Sent: Monday, January 03, 2022 3:34 PM
To: Perrie Ilercil; Jarb Thaipejr; 'Natalie Patty LilburnCorp'
Cc: Cheryl Tubbs (cheryl@lilburncorp.com)
Subject: RE: Canyon Ranch Project TIA Scoping Agreement Intersection Revision

Yes, checked and double checked, we are good with the discussed intersections

---

From: Perrie Ilercil [mailto:perrie@ganddini.com]
Sent: Monday, December 20, 2021 2:13 PM
To: Jeff Peterson <JPeterson@lomalinda-ca.gov>; Jarb Thaipejr <JThaipejr@lomalinda-ca.gov>; 'Natalie Patty LilburnCorp' <natalie@lilburncorp.com>
Cc: Cheryl Tubbs (cheryl@lilburncorp.com) <cheryl@lilburncorp.com>
Subject: Canyon Ranch Project TIA Scoping Agreement Intersection Revision
Importance: High

Mimecast Attachment Protection has deemed this file to be safe, but always exercise caution when opening files.

Jeff / Jarb,
As discussed this morning, the intersections of California Street at Barton and Nevada Street at Beaumont have been added to the scoping agreement for Canyon Ranch which was previously submitted on October 27, 2021 to Lorena Matarrita.

Please review the figure 1 and confirm that these are the final intersections and approve the scoping agreement for the traffic report for this project.

Thank you

Sincerely,

Perrie Ilercil, **PE (AZ)**
Senior Engineer

GANDDINI GROUP, INC.
555 Parkcenter Drive, Suite 225
Santa Ana, CA 92705
o. 714 795 3100 x 103
c. 949 257-3126
e: perrie@ganddini.com
www.ganddini.com

Disclaimer

The information contained in this communication from the sender is confidential. It is intended solely for use by the recipient and others authorized to receive it. If you are not the recipient, you are hereby notified that any disclosure, copying, distribution or taking action in relation of the contents of this information is strictly prohibited and may be unlawful.

MEMORANDUM OF UNDERSTANDING

TO: Lorena Matarrita, Associate Planner | CITY OF LOMA LINDA

FROM: Perrie Ilercil, PE (AZ) | GANDDINI GROUP, INC.

DATE: December 20, 2021

SUBJECT: Canyon Ranch Project Traffic Impact Analysis MOU 19409

INTRODUCTION

The purpose of this scoping document is to outline the proposed traffic analysis parameters and assumptions for the Canyon Ranch Project for review/concurrence by the City of Loma Linda staff.

PROJECT DESCRIPTION

The approximately 136-acre proposed annex area is generally located south of Barton Road, west of San Timoteo Canyon Road/Nevada Street, and northeast of the Union Pacific Railroad line in the City of Loma Linda sphere of influence (currently unincorporated). The annexation includes a General Plan Amendment and Zoning Map Amendment to change four lots from the current designation and zone of General Commercial to Low Density Residential. The two tentative tract maps (TTM) and adjacent lots found within this portion of the sphere of influence will be annexed into the City. See Attachment A for proposed annex area.

The approximately 66.9-acre proposed residential project site is located within the annexation area, north and south of Bermudez Street between San Timoteo Creek and San Timoteo Canyon Road in the City of Loma Linda, California. The project site is currently undeveloped and zoned for Low Density and Very Low Density Residential. The proposed residential project involves construction of two tentative tract maps consisting of 126 residential lots and 3 lettered lots [Project]. TTM-20403 consists of 37 lots (7,200 square feet minimum), a basin, and open space. TTM-20404 consists of 89 lots and a basin (20,000 square feet minimum). The project location map is shown on Figure 1. The project site plan for TTM-20403 and TTM-20404 are illustrated on Figure 2.

Vehicular access for the project site will be maintained at Barton Road, New Jersey Street, San Timoteo Road and Nevada Street. Additionally, the proposed project will vacate the Bermudez Street and San Timoteo Canyon Road intersection and construct a new cul-de-sac on the northern side of parcel 0293-091-04 with a 30-foot access driveway for the adjacent parcel on the east.

PROJECT TRIP GENERATION & DISTRIBUTION

Annexation Area

Table 1 shows proposed annex area trip generation is based upon trip generation rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). Trip generation rates for ITE Land Use Code 210 (single-family residential) and ITE Land Use Code 820 (commercial retail) were

used for the total previously approved zoning area, and rates from ITE Land Use Code 210 (single-family residential), ITE Land Use Code 560 (church) and ITE Land Use Code 820 (commercial retail) were used for the existing commercial and church development as well as the areas for the proposed residential properties. As shown in Table 1, the previously approved zoning and the future to be determined development were computed in acres and converted using residential density in dwellings per acre and commercial density in floor area ratio. When the actual commercial, church and proposed residential projects are accounted for and added to the remaining balance of the proposed zoning areas there is a slight reduction in the proposed is forecast to trip generation for the General Plan Buildout condition. The proposed annex area is forecast to generate approximately 13,763 daily trips, including 438 trips during the AM peak hour, and 1,274 trips during the PM peak hour. The proposed annex area is forecast to generate net reduction of 8,038 fewer daily trips, with 187 less trips during the AM peak hour, and 749 less trips during the PM peak hour.

Residential Projects TTM-20403 and TTM-20404

Table 2 shows proposed project trip generation is based upon trip generation rates obtained from the (ITE) *Trip Generation Manual*. Trip generation rates for ITE Land Use Code 210 (single-family residential) were used for the proposed project. As shown in Table 2, the proposed is forecast to generate approximately 1,188 daily trips, including 88 during the AM peak hour, and 119 trips during the PM peak hour.

Project Trip Distributions

Figure 3 illustrates the forecast directional distribution patterns of the project generated trips. The project trip distribution patterns are based on review of existing volume data, surrounding land uses, and the local and regional roadway facilities in the project vicinity.

STUDY AREA

The project was reviewed with the City of Loma Linda staff to determine the study area which consists of the following study intersections:

	Study Intersections	Jurisdiction
1	California Street (NS) at Barton Road (EW)	City of Loma Linda
2.	New Jersey Street at Barton Road	City of Loma Linda
3.	New Jersey Street at Bermudez Street	City of Loma Linda
4	San Timoteo Canyon Road at Barton Road	City of Loma Linda/ Redlands
5	Nevada Street at San Timoteo Canyon Road	City of Loma Linda /Redlands
6	Nevada Street (NS) at Beaumont Avenue (EW)	City of Loma Linda /Redlands
7	Project Access (F) (NS) at Bermudez Street (EW)	City of Loma Linda
8	San Timoteo Canyon Road (NS) at Project Access (G) (EW)1	City of Loma Linda /Redlands
9	Nevada Street (NS) at Project Access (B) (EW)	City of Loma Linda /Redlands

1. San Timoteo Canyon at Bermudez Street (to be vacated)

TRAFFIC COUNTS

New intersection turning movement counts will be collected at the study intersections during the typical weekday AM and PM peak hour (7:00 AM – 9:00 AM and 4:00 - 6:00 PM). A historical 2018 count at the intersection of Barton Road and California Street will be increased by one percent per year to estimate non-pandemic year 2021 volumes and compared to the new counts. If necessary, new counts shall be adjusted

as appropriate based on a factor derived from the difference between the adjusted historical count and new count volumes.

INTERSECTION ANALYSIS METHODOLOGY

In accordance with the City of Loma Linda standard procedures, and the County of San Bernardino *Transportation Impact Study Guidelines*, *July 2019*, intersections shall by analyzed using the intersection delay methodology based on procedures contained in the *Highway Capacity Manual* (Transportation Research Board, 6th Edition). Default values not specifically identified in the City or County guidelines will be based *Highway Capacity Manual* recommended values. Intersection analysis shall be performed using the Vistro software (Version 6.00-00).

PERFORMANCE STANDARDS

The City of Loma Linda General Plan Policy T-6.10.1, seeks to maintain Level of Service (C or better) for peak hour intersection operations.

In any location where the Level of Service is below Level of Service C at the time an application for a development project is submitted, roadway improvement measures shall be imposed on that development project to assure, at a minimum, that the level of traffic service is maintained at Levels of Service that are no worse than those existing at the time an application for development is filed.

A traffic impact is considered a project-related impact if the project both: i) contributes measurable traffic to and ii) substantially and adversely changes the Level of Service at any off-site location projected to experience deficient operations under foreseeable cumulative conditions, where feasible improvements consistent with the City of Loma Linda General Plan cannot be constructed.

The City of Redlands General Plan and Measure U Section 1A.60 Principle Six has established the minimum acceptable Level of Service (C or better) for roadway segment and peak hour intersection operations. Where the current Level of Service is lower C, roadway improvements shall be provided such that the LOS is not reduced below the LOS at the time of the application, or as provided in Section 5.20 of the Redlands General Plan where a more intense Level of Service is specifically permitted, for Existing Plus Project conditions.

ANALYSIS SCENARIOS

The traffic study shall evaluate the following analysis scenarios for typical weekday AM and PM peak hour conditions:

- Existing
- Existing Plus Project
- Opening Year (2024) Without Project
- Opening Year (2024) With Project
- Year 2040 Without Project
- Year 2040 Buildout With Project

FORECASTING METHODOLOGY

<u>Other Development</u>

In addition, a list of pending and approved other development projects shall be requested from the City of Loma Linda and the City of Redlands. Trip forecasts for other development projects within the project study area shall be determined from the other development traffic study or calculated based on the Institute of Transportation Engineers (ITE), *Trip Generation Manual* and will be manually assigned to the study intersections.

Model Interpolated Background Growth

In addition to other development trips, the Opening Year (2024) projections will be interpolated by utilizing a portion of the total growth between existing and Year 2040 San Bernardino Transportation Analysis Model (SBTAM) traffic volumes. The incremental growth in average daily traffic volume has been factored to reflect the forecast growth between the measured count year (2021) and year 2040. For analysis purposes, linear growth between the base year condition and the horizon year condition was assumed.

Model General Buildout Growth

General Buildout (Year 2040) AM and PM peak hour intersection turning movement volumes will be determined using the SBTAM Year 2040 travel demand model plots and forecasting procedures outlined in the National Cooperative Highway Research Program Report 255.

VEHICLE MILES TRAVELED (VMT) ASSESSMENT

A VMT letter report supplemental to the traffic study shall be submitted to provide VMT screening analysis for CEQA compliance based on State-recommended screening criteria or those adopted by the City of Loma Linda at the time of preparation. The VMT letter report shall include a narrative of narrative of VMT requirements under CEQA and documentation of the project screening results based on the applicable criteria.

Annexation Area

Based on preliminary review, the proposed annex area is anticipated to satisfy the County-established VMT screening criteria for less than 110 daily trip generation forecast; therefore, the project may be presumed to result in a less than significant VMT impact.

Residential Projects TTM-20403 and TTM-20404

Based on preliminary review, the proposed project is anticipated to satisfy the County-established VMT screening criteria for low VMT area. If necessary, to assess the significance of the project VMT impact relative to the applicable thresholds of significance, the project VMT will be estimated using the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool. VMT for project traffic analysis zone (TAZ) shall be used as a proxy for the proposed project since the proposed project is not regionally significant. Therefore, new model runs are not anticipated to be required or included in this scope of work.

CONCLUSION

We appreciate the opportunity to provide this memorandum of understanding for your review. Should you have any questions or comments regarding the proposed scope, please contact me at (714) 795-3100 or 949-257-3126.

Table 1
Annexation Area General Buildout Trip Generation

Trip Generation Rates									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Land Use Variable[2]	% In	% Out	Rate	% In	% Out	Rate	Daily Rate
Single-Family Detached Housing	ITE 210	DU	26%	74%	0.70	63%	37%	0.94	9.43
Church	ITE 560	TSF	62%	38%	0.32	44%	56%	0.49	7.60
Shopping Center (>150k)	ITE 820	TSF	62%	38%	0.84	48%	52%	3.40	37.01

Trips Generated									
			AM Peak Hour			PM Peak Hour			
Land Use	Source	Quantity	In	Out	Total	In	Out	Total	Daily
Existing/Previous Zoning									
Commercial Retail (FAR = 0.5) (ac)	ITE 820	520.542 TSF	271	166	437	850	920	1,770	19,265
Low Density Residential (4 du/ac) (ac)	ITE 210	89 DU	16	46	62	53	31	84	839
Very Low Density Residential (2 du/ac) (ac)	ITE 210	180 DU	33	93	126	107	62	169	1,697
Subtotal Previous Zoning		136.0 AC	320	305	625	1,010	1,013	2,023	21,801
Proposed Zoning									
TTM20403 (10.96 AC)	ITE 210	37 DU	7	19	26	22	13	35	349
TTM20404 (55.72 AC)	ITE 210	89 DU	16	46	62	53	31	84	839
Loma Linda Korean Church (ac)	ITE 560	42.900 TSF	9	5	14	9	12	21	326
Commercial Retail (FAR = 0.5) (ac)	ITE 820	300.128 TSF	156	96	252	490	530	1,020	11,108
Low Density Residential (4 du/ac) (ac)	ITE 210	52 DU	9	27	36	31	18	49	490
Very Low Density Residential (2 du/ac) (ac)	ITE 210	69 DU	13	35	48	41	24	65	651
Subtotal Proposed Land use/ Zoning		136.0 AC	210	228	438	646	628	1,274	13,763
NET NEW TRIPS GENERATED			**- 110**	**- 77**	**- 187**	**- 364**	**- 385**	**- 749**	**- 8,038**

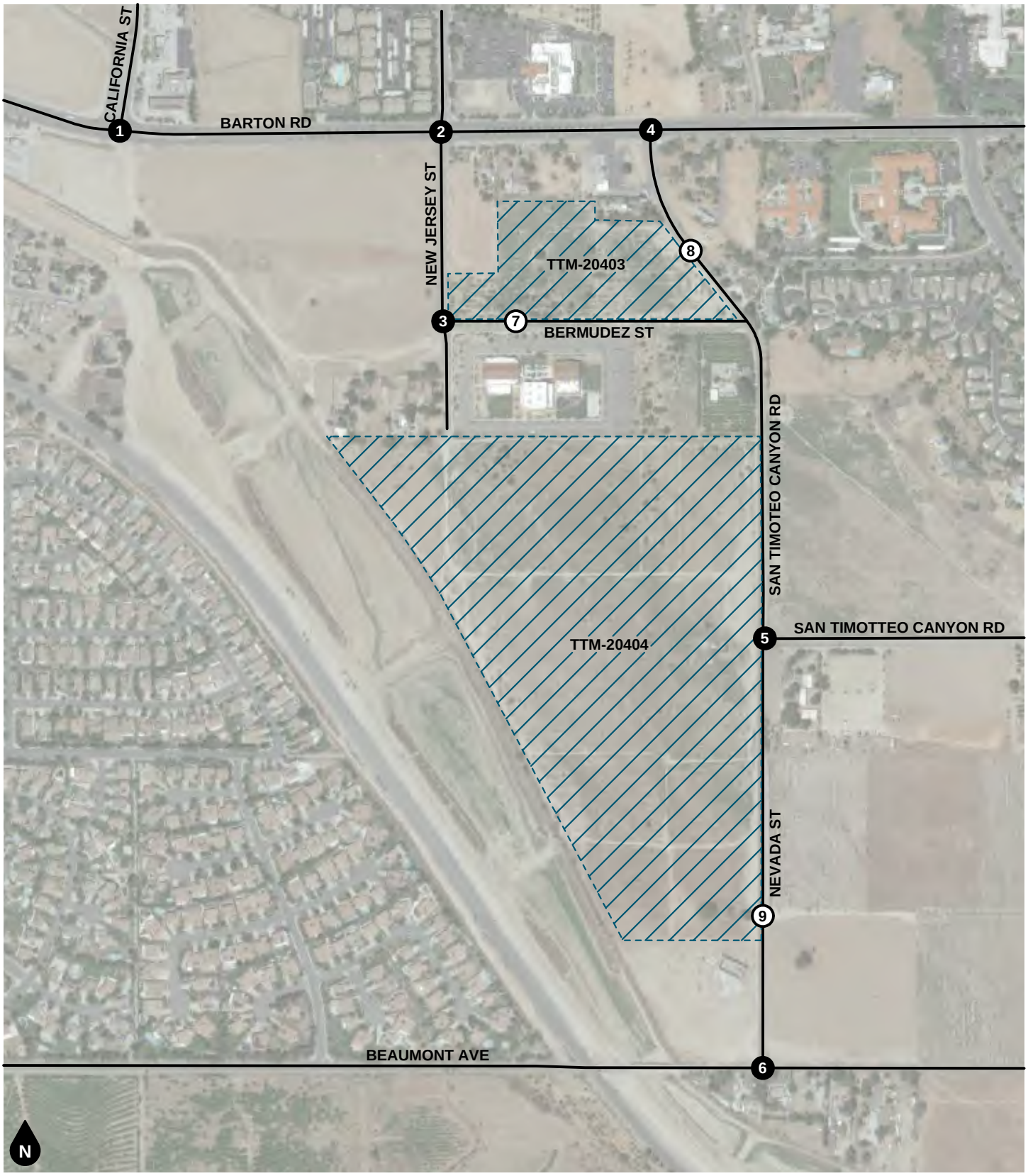
Notes:
(1) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code. All rates based on General Urban/Suburban rates, unless otherwise noted.
(2) DU = Dwelling Units; TSF = Thousand Square Feet.

Table 2
Project Trip Generation

Trip Generation Rates									
			Weekday						
			AM Peak Hour			PM Peak Hour			Daily
Land Use	Source[1]	Land Use Variable[2]	% In	% Out	Rate	% In	% Out	Rate	Rate
Single-Family Detached Housing	ITE 210	DU	26%	74%	0.70	63%	37%	0.94	9.43

Trips Generated									
			AM Peak Hour			PM Peak Hour			
Land Use	Source	Quantity	In	Out	Total	In	Out	Total	Daily
TTM20403 (10.96 AC)	ITE 210	37 DU	7	19	26	22	13	35	349
TTM20404 (55.72 AC)	ITE 210	89 DU	16	46	62	53	31	84	839
NET NEW TRIPS GENERATED			**+ 23**	**+ 65**	**+ 88**	**+ 75**	**+ 44**	**+ 119**	**+ 1,188**

Notes:
(1) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code. All rates based on General Urban/Suburban rates, unless otherwise noted.
(2) DU = Dwelling Units.



Legend

(#) Study Intersection

(#) Project Driveway

Figure 1
Project Location Map

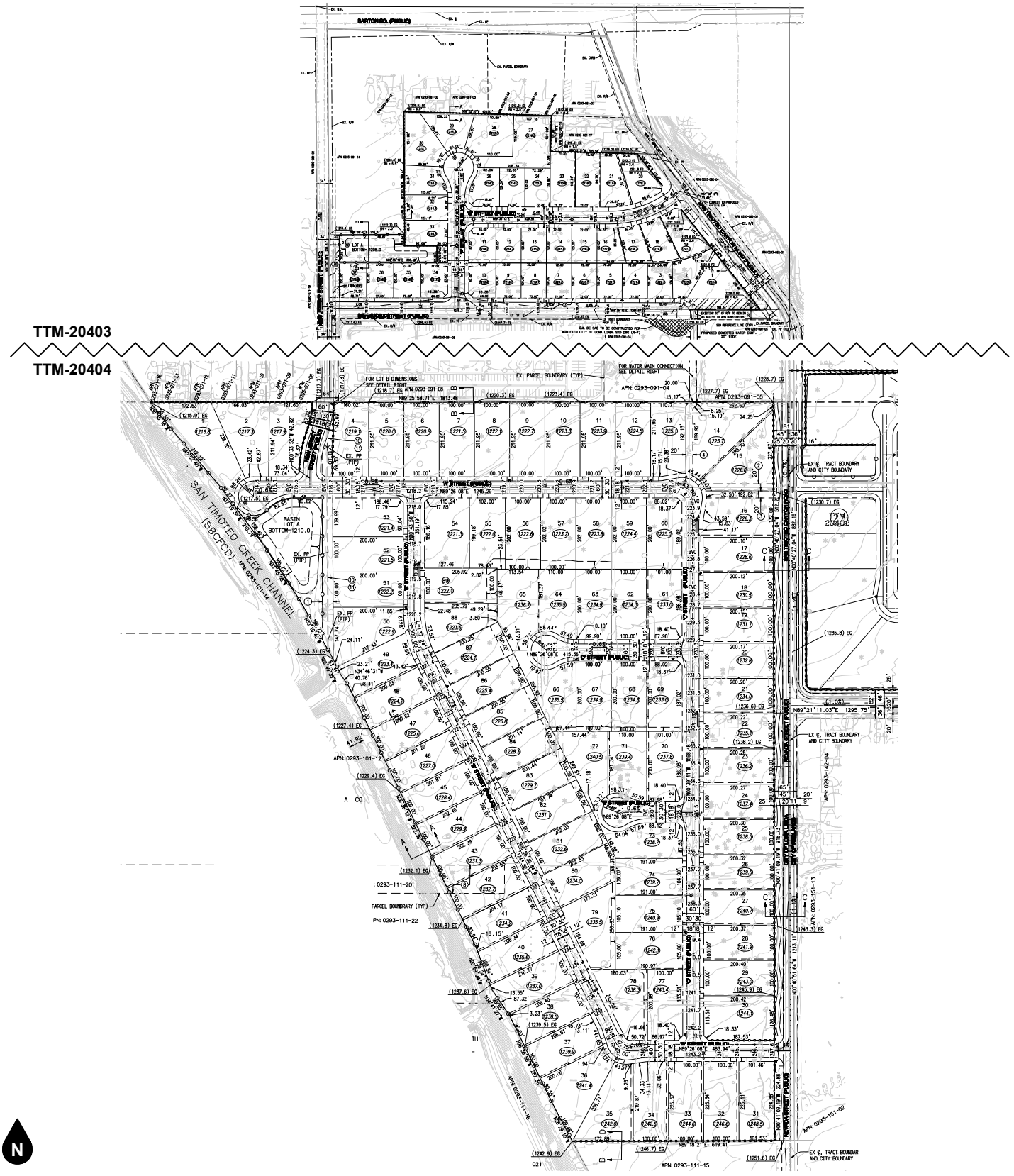
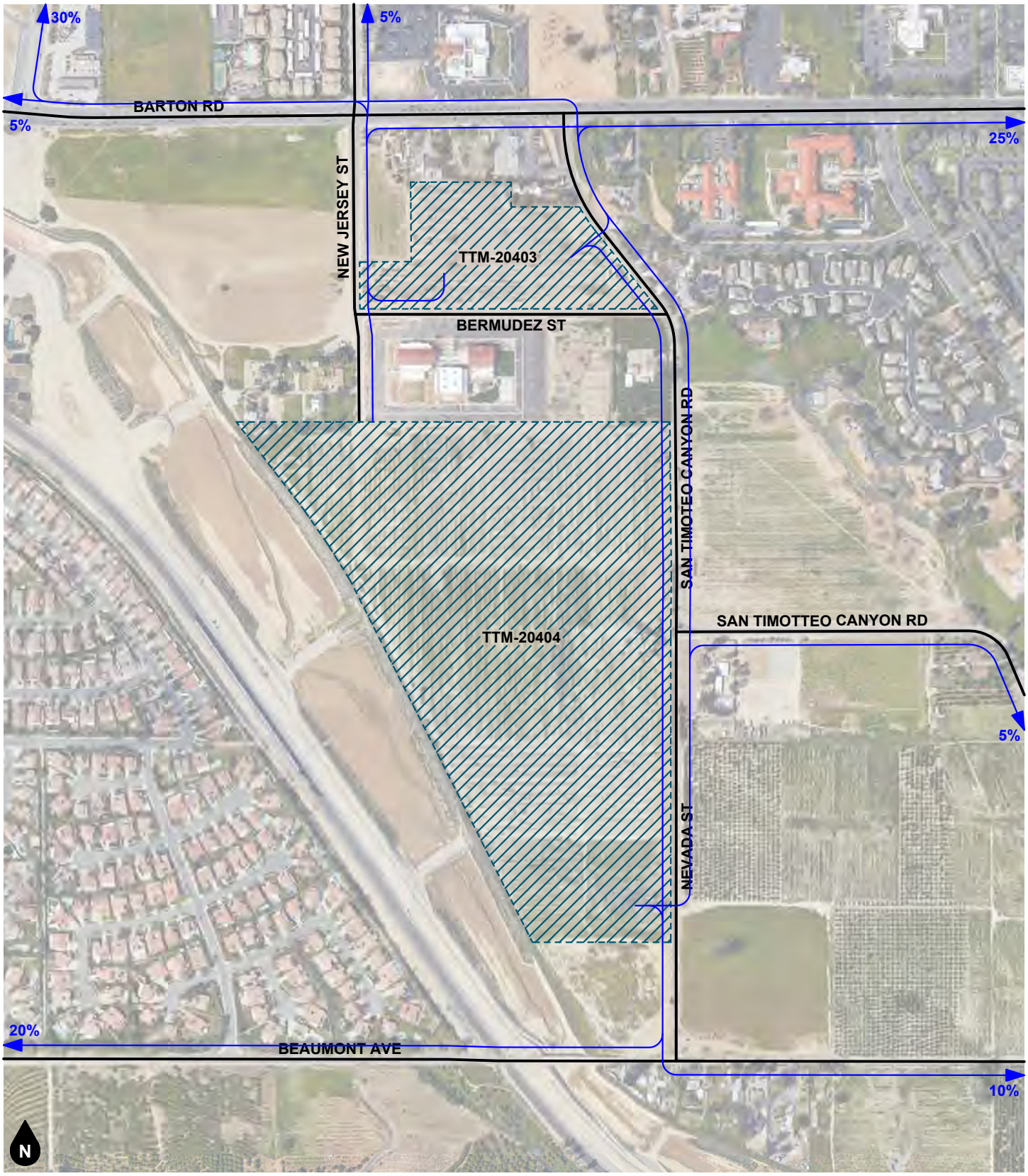


Figure 2
Site Plan



Legend

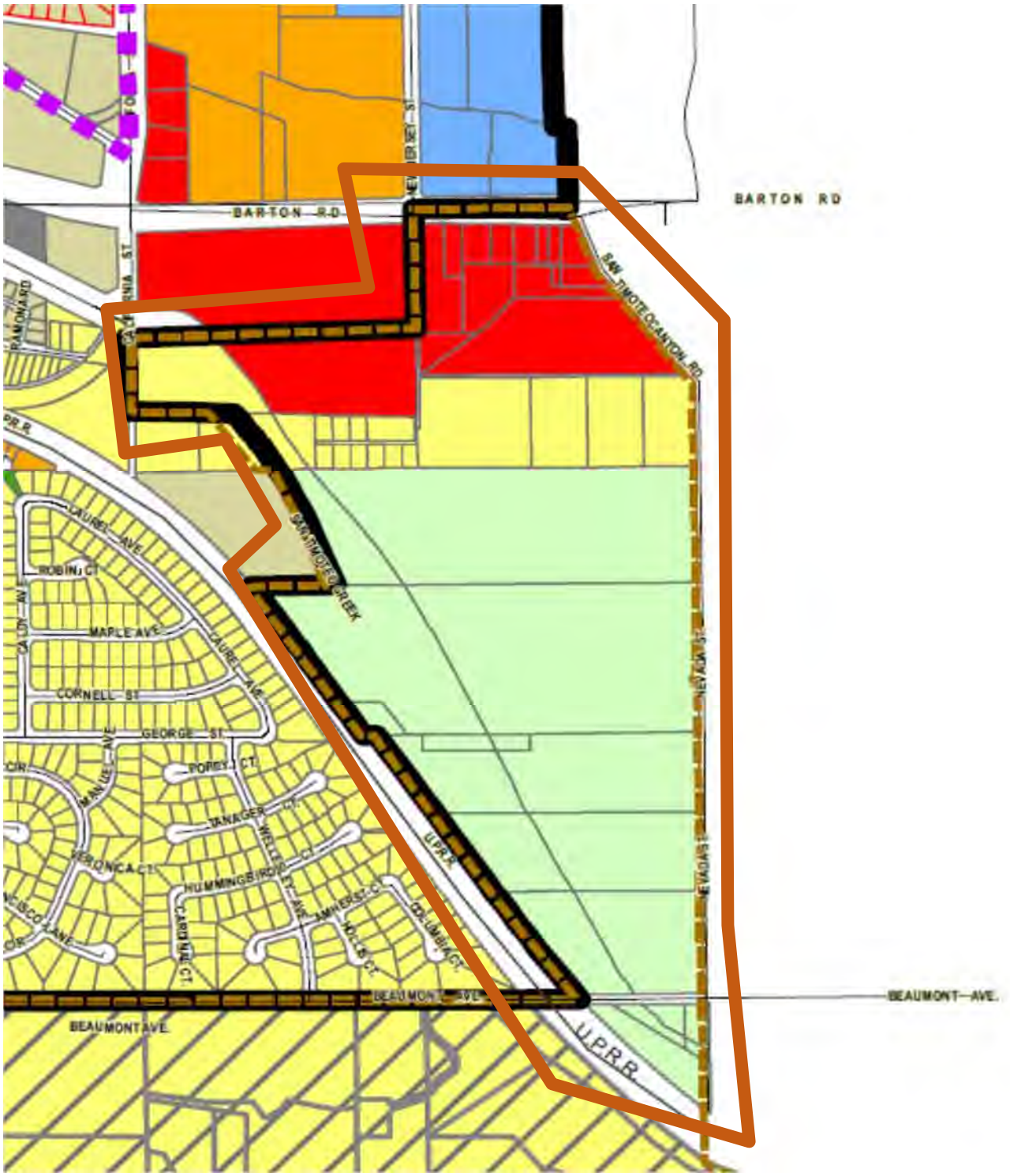
10% Percent To/From Project

Figure 3
Project Trip Distribution

ATTACHMENT A

PROPOSED ANNEX AREA

Annexation Subject Area:



APPENDIX C

COUNT DATA

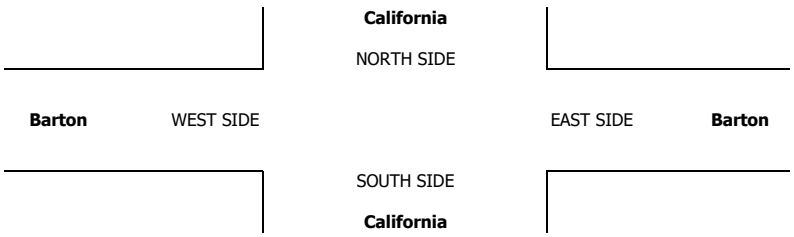
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Loma Linda	PROJECT #:	SC3198
11/30/21	NORTH & SOUTH:	California	LOCATION #:	5
TUESDAY	EAST & WEST:	Barton	CONTROL:	SIGNAL

	NOTES:												
PCE	Class	1	2	3	4	5	6			AM		▲ N	
Adjusted	Factor	1	1.5	2	3	2	2			PM			
										MD	◄ W		E ►
										OTHER		S	
										OTHER		▼	

		NORTHBOUND California			SOUTHBOUND California			EASTBOUND Barton			WESTBOUND Barton			
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 2	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	101	0	43	42	115	0	0	151	85	536
	7:15 AM	0	0	0	63	0	54	48	147	0	0	197	104	612
	7:30 AM	0	0	0	115	0	72	66	153	0	0	203	117	725
	7:45 AM	0	0	0	113	0	66	68	185	0	0	300	108	839
	8:00 AM	0	0	0	156	0	85	48	188	0	0	196	85	757
	8:15 AM	0	0	0	89	0	47	43	162	0	0	234	121	694
	8:30 AM	0	0	0	77	0	69	38	115	0	0	218	118	633
	8:45 AM	0	0	0	79	0	52	43	135	0	0	179	68	554
	VOLUMES	0	0	0	792	0	486	395	1,198	0	0	1,675	804	5,349
	APPROACH %	0%	0%	0%	62%	0%	38%	25%	75%	0%	0%	68%	32%	
	APP/DEPART	0	/	1,199	1,277	/	0	1,593	/	1,990	2,479	/	2,161	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	0	0	472	0	269	225	687	0	0	932	431	3,014
	APPROACH %	0%	0%	0%	64%	0%	36%	25%	75%	0%	0%	68%	32%	
	PEAK HR FACTOR		0.000			0.770			0.901			0.837		0.898
	APP/DEPART	0	/	655	741	/	0	912	/	1,159	1,362	/	1,200	0
PM	04:00 PM	0	0	0	97	0	42	84	245	0	0	195	86	748
	4:15 PM	0	0	0	92	0	41	68	263	0	0	172	89	725
	4:30 PM	0	0	0	88	0	47	83	267	0	0	135	88	707
	4:45 PM	0	0	0	82	0	49	107	299	0	0	162	101	800
	5:00 PM	0	0	0	65	0	47	84	301	0	0	219	116	831
	5:15 PM	0	0	0	107	0	35	73	325	0	0	150	56	745
	5:30 PM	0	0	0	98	0	44	78	293	0	0	147	68	727
	5:45 PM	0	0	0	85	0	54	55	238	0	0	169	54	653
	VOLUMES	0	0	0	712	0	359	631	2,229	0	0	1,348	657	5,935
	APPROACH %	0%	0%	0%	66%	0%	34%	22%	78%	0%	0%	67%	33%	
	APP/DEPART	0	/	1,288	1,071	/	0	2,860	/	2,941	2,004	/	1,707	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	351	0	175	342	1,217	0	0	678	341	3,103
	APPROACH %	0%	0%	0%	67%	0%	33%	22%	78%	0%	0%	67%	33%	
	PEAK HR FACTOR		0.000			0.925			0.960			0.761		0.933
	APP/DEPART	0	/	683	526	/	0	1,559	/	1,568	1,018	/	853	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Loma Linda	PROJECT #:	SC3171
11/4/21	NORTH & SOUTH:	New Jersey	LOCATION #:	1
THURSDAY	EAST & WEST:	Barton	CONTROL:	SIGNAL

	NOTES:											
PCE	Class	1	2	3	4	5	6			AM		▲ N
Adjusted	Factor	1	1.5	2	3	2	2			PM		
										MD	◄ W	E ►
										OTHER		S
										OTHER		▼

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	New Jersey			New Jersey			Barton			Barton			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	12	0	10	8	191	0	0	224	10	455
7:15 AM	0	0	0	13	0	16	17	234	1	0	261	17	556
7:30 AM	0	0	0	12	0	25	13	238	4	0	334	15	641
7:45 AM	1	0	2	21	2	32	14	283	0	2	354	17	727
8:00 AM	0	0	0	14	2	16	15	297	1	0	303	23	670
8:15 AM	2	0	1	14	0	14	18	259	1	1	299	16	624
8:30 AM	0	0	0	8	1	18	13	217	0	2	348	10	615
8:45 AM	0	0	1	15	0	20	17	211	0	1	285	10	558
AM VOLUMES	3	0	4	108	5	150	113	1,928	7	6	2,405	117	4,845
AM APPROACH %	43%	0%	57%	41%	2%	57%	6%	94%	0%	0%	95%	5%	
AM APP/DEPART	7	/	230	262	/	18	2,048	/	2,040	2,528	/	2,558	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	3	0	3	60	4	87	60	1,076	6	3	1,289	71	2,661
APPROACH %	50%	0%	50%	40%	3%	58%	5%	94%	1%	0%	95%	5%	
PEAK HR FACTOR		0.500			0.693			0.913			0.914		0.916
APP/DEPART	6	/	130	151	/	13	1,142	/	1,139	1,362	/	1,379	0
04:00 PM	0	0	0	32	1	18	15	355	0	1	265	9	696
4:15 PM	0	0	0	21	0	19	14	361	0	4	231	10	660
4:30 PM	0	0	0	26	0	28	13	359	1	1	234	4	666
4:45 PM	1	0	1	10	0	25	15	377	1	1	212	5	647
5:00 PM	1	0	2	22	0	20	26	348	1	1	283	10	713
5:15 PM	1	0	0	19	0	10	18	398	1	2	207	8	664
5:30 PM	2	0	0	20	0	17	14	350	0	1	230	10	643
5:45 PM	1	0	0	21	0	27	19	352	0	3	204	17	644
PM VOLUMES	6	0	3	171	1	164	134	2,897	4	14	1,865	73	5,330
PM APPROACH %	71%	0%	29%	51%	0%	49%	4%	95%	0%	1%	96%	4%	
PM APP/DEPART	9	/	207	336	/	19	3,035	/	3,070	1,952	/	2,035	0
BEGIN PEAK HR		4:30 PM											
VOLUMES	3	0	3	77	0	83	72	1,481	4	5	936	27	2,689
APPROACH %	55%	0%	45%	48%	0%	52%	5%	95%	0%	1%	97%	3%	
PEAK HR FACTOR		0.550			0.738			0.933			0.824		0.943
APP/DEPART	6	/	99	160	/	9	1,556	/	1,560	968	/	1,022	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Loma Linda	PROJECT #:	SC3171
11/4/21	NORTH & SOUTH:	New Jersey	LOCATION #:	2
THURSDAY	EAST & WEST:	Bermudez	CONTROL:	STOP W

	NOTES:												
PCE	Class	1	2	3	4	5	6			AM		▲ N	
Adjusted	Factor	1	1.5	2	3	2	2			PM			
										MD	◄ W		E ►
										OTHER		S	
										OTHER		▼	

		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
		New Jersey			New Jersey			Bermudez			Bermudez			
	LANES:	NL X	NT 1	NR 0	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 0	WT X	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
	7:30 AM	0	0	0	1	3	0	0	0	0	0	0	0	4
	7:45 AM	0	2	0	3	1	0	0	0	0	0	0	1	7
	8:00 AM	0	2	0	0	3	0	0	0	0	0	0	0	5
	8:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
	8:30 AM	0	0	0	3	0	0	0	0	0	0	0	0	3
	8:45 AM	0	2	0	1	0	0	0	0	0	0	0	0	3
	VOLUMES	0	6	0	10	7	0	0	0	0	0	0	1	24
	APPROACH %	0%	100%	0%	58%	42%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	6	/	7	17	/	7	0	/	10	1	/	0	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	4	0	5	7	0	0	0	0	0	0	1	17
	APPROACH %	0%	100%	0%	42%	58%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.500			0.750			0.000			0.250		0.607
	APP/DEPART	4	/	5	12	/	7	0	/	5	1	/	0	0
PM	04:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	4:15 PM	0	0	0	2	0	0	0	0	0	1	0	0	3
	4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	4:45 PM	0	1	0	2	0	0	0	0	0	0	0	0	3
	5:00 PM	0	0	0	0	2	0	0	0	0	0	0	2	4
	5:15 PM	0	3	1	1	0	0	0	0	0	0	0	0	5
	5:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	2
	5:45 PM	0	0	0	0	2	0	0	0	0	0	0	1	3
	VOLUMES	0	4	2	6	6	0	0	0	0	1	0	3	22
	APPROACH %	0%	67%	33%	50%	50%	0%	0%	0%	0%	25%	0%	75%	
	APP/DEPART	6	/	7	12	/	7	0	/	8	4	/	0	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	4	2	3	3	0	0	0	0	0	0	2	14
	APPROACH %	0%	67%	33%	50%	50%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.375			0.750			0.000			0.250		0.700
	APP/DEPART	6	/	6	6	/	3	0	/	5	2	/	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Loma Linda	PROJECT #:	SC3171
11/4/21	NORTH & SOUTH:	San Timoteo Canyon	LOCATION #:	3
THURSDAY	EAST & WEST:	Barton	CONTROL:	SIGNAL

	NOTES:												
PCE	Class	1	2	3	4	5	6			AM		▲ N	
Adjusted	Factor	1	1.5	2	3	2	2			PM			
										MD	◄ W		E ►
										OTHER		S	
										OTHER		▼	

		NORTHBOUND San Timoteo Canyon			SOUTHBOUND San Timoteo Canyon			EASTBOUND Barton			WESTBOUND Barton			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 1	WT 2	WR X	TOTAL
AM	7:00 AM	81	0	33	0	0	0	0	125	78	23	154	0	493
	7:15 AM	59	0	29	0	0	0	0	165	81	21	218	0	572
	7:30 AM	48	0	40	0	0	0	0	199	51	33	301	0	671
	7:45 AM	75	0	42	0	0	0	0	241	65	36	293	0	751
	8:00 AM	50	0	32	0	0	0	0	268	43	19	276	0	687
	8:15 AM	51	0	35	0	0	0	0	234	40	23	265	0	647
	8:30 AM	58	0	42	0	0	0	0	173	53	25	302	0	651
	8:45 AM	62	0	46	0	0	0	0	166	61	26	234	0	594
	VOLUMES	483	0	298	0	0	0	0	1,568	471	204	2,040	0	5,063
	APPROACH %	62%	0%	38%	0%	0%	0%	0%	77%	23%	9%	91%	0%	
	APP/DEPART	780	/	0	0	/	675	2,039	/	1,866	2,244	/	2,523	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	224	0	149	0	0	0	0	940	198	111	1,134	0	2,754
	APPROACH %	60%	0%	40%	0%	0%	0%	0%	83%	17%	9%	91%	0%	
	PEAK HR FACTOR		0.795			0.000			0.916			0.933		0.917
	APP/DEPART	372	/	0	0	/	309	1,138	/	1,089	1,244	/	1,357	0
PM	04:00 PM	40	0	24	0	0	0	0	301	87	47	227	0	725
	4:15 PM	41	0	42	0	0	0	0	297	87	40	205	0	710
	4:30 PM	49	0	40	0	0	0	0	294	92	42	190	0	707
	4:45 PM	46	0	32	0	0	0	0	323	64	48	173	0	685
	5:00 PM	46	0	38	0	0	0	0	313	59	63	248	0	765
	5:15 PM	34	0	23	0	0	0	0	358	61	41	184	0	700
	5:30 PM	54	0	44	0	0	0	0	316	54	42	187	0	696
	5:45 PM	26	0	19	0	0	0	0	309	50	39	198	0	640
	VOLUMES	334	0	261	0	0	0	0	2,509	553	361	1,610	0	5,628
	APPROACH %	56%	0%	44%	0%	0%	0%	0%	82%	18%	18%	82%	0%	
	APP/DEPART	595	/	0	0	/	914	3,062	/	2,770	1,971	/	1,944	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	179	0	137	0	0	0	0	1,309	238	193	791	0	2,846
	APPROACH %	57%	0%	43%	0%	0%	0%	0%	85%	15%	20%	80%	0%	
	PEAK HR FACTOR		0.809			0.000			0.923			0.794		0.930
	APP/DEPART	316	/	0	0	/	431	1,547	/	1,446	984	/	970	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Loma Linda	PROJECT #:	SC3171
11/4/21	NORTH & SOUTH:	Nevada	LOCATION #:	5
THURSDAY	EAST & WEST:	San Timoteo Canyon	CONTROL:	STOP N

	NOTES:												
PCE	Class	1	2	3	4	5	6			AM		▲ N	
Adjusted	Factor	1	1.5	2	3	2	2			PM			
										MD	◄ W		E ►
										OTHER		S	
										OTHER		▼	

		NORTHBOUND Nevada			SOUTHBOUND Nevada			EASTBOUND San Timoteo Canyon			WESTBOUND San Timoteo Canyon			
	LANES:	NL X	NT 1	NR 0	SL 1	ST 0	SR X	EL X	ET X	ER X	WL 0	WT X	WR 1	TOTAL
AM	7:00 AM	0	1	0	95	6	0	0	0	0	0	0	100	201
	7:15 AM	0	6	0	97	7	0	0	0	0	0	0	79	189
	7:30 AM	0	7	0	63	14	0	0	0	0	0	0	88	171
	7:45 AM	0	16	0	90	9	0	0	0	0	0	0	93	207
	8:00 AM	0	9	0	47	8	0	0	0	0	0	0	82	145
	8:15 AM	0	2	1	57	8	0	0	0	0	0	0	88	155
	8:30 AM	0	8	0	68	13	0	0	0	0	0	0	96	184
	8:45 AM	0	6	0	86	9	0	0	0	0	2	0	108	211
	VOLUMES	0	54	1	601	72	0	0	0	0	2	0	732	1,462
	APPROACH %	0%	98%	2%	89%	11%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	55	/	786	673	/	74	0	/	602	734	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	30	0	344	35	0	0	0	0	0	0	360	768
	APPROACH %	0%	100%	0%	91%	9%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.469			0.910			0.000			0.903		0.928
	APP/DEPART	30	/	390	379	/	35	0	/	344	360	/	0	0
PM	04:00 PM	0	14	0	131	14	0	0	0	0	0	0	61	219
	4:15 PM	0	9	2	120	13	0	0	0	0	0	0	62	205
	4:30 PM	0	3	1	118	13	0	0	0	0	1	0	89	224
	4:45 PM	0	1	1	97	19	0	0	0	0	0	0	89	207
	5:00 PM	0	6	0	102	13	0	0	0	0	0	0	72	193
	5:15 PM	0	5	0	94	8	0	0	0	0	0	0	42	148
	5:30 PM	0	11	1	68	15	0	0	0	0	0	0	82	177
	5:45 PM	0	4	0	71	13	0	0	0	0	0	0	40	128
	VOLUMES	0	53	5	798	108	0	0	0	0	1	0	534	1,498
	APPROACH %	0%	91%	9%	88%	12%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	58	/	587	906	/	109	0	/	803	535	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	27	4	464	59	0	0	0	0	1	0	300	854
	APPROACH %	0%	87%	13%	89%	11%	0%	0%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.565			0.904			0.000			0.839		0.955
	APP/DEPART	31	/	326	523	/	60	0	/	468	301	/	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Loma Linda	PROJECT #:	SC3198
11/30/21	NORTH & SOUTH:	Nevada	LOCATION #:	6
TUESDAY	EAST & WEST:	Beaumont	CONTROL:	STOP S

	NOTES:											
PCE	Class	1	2	3	4	5	6			AM		▲ N
Adjusted	Factor	1	1.5	2	3	2	2			PM		
										MD	◄ W	E ►
										OTHER		S
										OTHER		▼

	NORTHBOUND Nevada			SOUTHBOUND Nevada			EASTBOUND Beaumont			WESTBOUND Beaumont			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	1	0	0	4	11	0	0	30	1	47
7:15 AM	0	0	0	4	0	8	8	18	0	0	48	1	86
7:30 AM	0	0	0	6	0	10	10	32	0	0	45	0	103
7:45 AM	0	0	0	6	0	2	12	25	0	0	60	6	111
8:00 AM	0	1	0	3	1	4	2	33	0	1	46	0	90
8:15 AM	0	0	0	3	0	4	6	29	0	0	44	0	86
8:30 AM	0	0	0	2	0	1	0	17	0	0	39	2	61
8:45 AM	0	0	0	3	0	4	6	22	0	0	33	1	68
AM VOLUMES	0	1	0	27	1	33	47	186	0	1	344	11	650
AM APPROACH %	0%	100%	0%	45%	2%	54%	20%	80%	0%	0%	97%	3%	
AM APP/DEPART	1	/	59	61	/	2	233	/	213	356	/	376	0
AM BEGIN PEAK HR		7:30 AM											
AM VOLUMES	0	1	0	18	1	20	29	119	0	1	195	6	389
AM APPROACH %	0%	100%	0%	46%	3%	51%	20%	80%	0%	0%	97%	3%	
AM PEAK HR FACTOR		0.250			0.594			0.892			0.763		0.879
AM APP/DEPART	1	/	36	38	/	2	148	/	137	202	/	214	0
04:00 PM	0	0	0	8	0	9	5	38	0	0	24	0	83
4:15 PM	0	0	0	1	0	8	4	47	0	0	18	3	81
4:30 PM	0	0	0	2	0	1	5	29	0	0	21	2	60
4:45 PM	0	0	0	5	0	6	3	38	0	0	11	0	63
5:00 PM	0	0	0	3	0	6	4	42	0	0	24	1	79
5:15 PM	0	0	0	4	0	11	8	34	0	0	7	1	65
5:30 PM	0	0	0	5	0	6	1	30	0	0	15	3	60
5:45 PM	1	0	0	3	0	10	4	29	0	0	18	0	65
PM VOLUMES	1	0	0	31	0	56	34	285	0	0	137	10	554
PM APPROACH %	100%	0%	0%	35%	0%	65%	11%	89%	0%	0%	93%	7%	
PM APP/DEPART	1	/	44	87	/	0	319	/	316	147	/	194	0
PM BEGIN PEAK HR		4:15 PM											
PM VOLUMES	0	0	0	11	0	21	16	155	0	0	74	6	282
PM APPROACH %	0%	0%	0%	33%	0%	67%	9%	91%	0%	0%	92%	8%	
PM PEAK HR FACTOR		0.000			0.716			0.838			0.811		0.870
PM APP/DEPART	0	/	22	32	/	0	171	/	166	80	/	95	0

Nevada

NORTH SIDE

Beaumont WEST SIDE EAST SIDE **Beaumont**

SOUTH SIDE

Nevada

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Loma Linda	PROJECT #:	SC3171
11/4/21	NORTH & SOUTH:	San Timoteo Canyon	LOCATION #:	4
THURSDAY	EAST & WEST:	Bermudez	CONTROL:	STOP E

	NOTES:												
PCE	Class	1	2	3	4	5	6			AM		▲ N	
Adjusted	Factor	1	1.5	2	3	2	2			PM			
										MD	◄ W		E ►
										OTHER		S	
										OTHER		▼	

		NORTHBOUND San Timoteo Canyon			SOUTHBOUND San Timoteo Canyon			EASTBOUND Bermudez			WESTBOUND Bermudez			
	LANES:	NL X	NT 1	NR X	SL X	ST 1	SR 1	EL X	ET X	ER 0	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	101	0	0	101	0	0	0	0	0	0	0	201
	7:15 AM	0	85	0	0	103	0	0	0	1	0	0	0	189
	7:30 AM	0	95	0	0	76	0	0	0	0	0	0	0	171
	7:45 AM	0	109	0	0	95	0	0	0	3	0	0	0	207
	8:00 AM	0	84	0	0	55	0	0	0	0	0	0	0	139
	8:15 AM	0	90	0	0	63	0	0	0	1	0	0	0	154
	8:30 AM	0	103	0	0	82	0	0	0	2	0	0	0	187
	8:45 AM	0	114	0	0	94	1	0	0	1	0	0	0	210
	VOLUMES	0	780	0	0	668	1	0	0	8	0	0	0	1,457
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	780	/	780	669	/	676	8	/	0	0	/	1	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	390	0	0	375	0	0	0	4	0	0	0	768
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.893			0.909			0.333			0.000		0.928
	APP/DEPART	390	/	390	375	/	379	4	/	0	0	/	0	0
PM	04:00 PM	0	74	0	0	144	0	0	0	1	0	0	0	219
	4:15 PM	0	71	0	0	132	1	0	0	2	0	0	0	205
	4:30 PM	0	92	0	0	130	0	0	0	0	0	0	0	222
	4:45 PM	0	90	0	0	115	0	0	0	1	0	0	0	206
	5:00 PM	0	78	0	0	115	1	0	0	0	0	0	0	194
	5:15 PM	0	47	0	0	100	0	0	0	2	0	0	0	148
	5:30 PM	0	93	0	0	82	0	0	0	1	0	0	0	176
	5:45 PM	0	44	0	0	84	1	0	0	0	0	0	0	129
	VOLUMES	0	587	0	0	900	3	0	0	7	0	0	0	1,496
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	587	/	587	903	/	907	7	/	0	0	/	3	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	326	0	0	520	1	0	0	4	0	0	0	851
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.891			0.907			0.500			0.000		0.960
	APP/DEPART	326	/	326	521	/	524	4	/	0	0	/	1	0

San Timoteo Canyon

NORTH SIDE

Bermudez WEST SIDE EAST SIDE **Bermudez**

SOUTH SIDE

San Timoteo Canyon

APPENDIX D

EXISTING VOLUME ADJUSTMENT FACTOR CALCULATIONS

Adjusted Growth Factor Calculations

id.	Intersection Description		Peak Hour	Traffic Volumes NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	Count 2018	1/31/2018		Historical Count 2018												
1	Mountain View Ave	Barton Road	AM	158	380	83	293	299	340	180	454	86	142	913	219	3547
4	California Street	Redlands Blvd	AM	95	345	10	286	315	139	97	166	272	44	457	325	2551
5	California Street	Barton Road	AM	0	0	0	275	0	248	154	581	0	0	1073	353	2684
1	Mountain View Ave	Barton Road	PM	172	344	145	304	334	182	280	1055	116	199	525	170	3826
4	California Street	Redlands Blvd	PM	52	323	32	329	240	94	240	550	185	74	461	488	3068
5	California Street	Barton Road	PM	0	0	0	348	0	190	243	1336	0	0	652	231	3000
	Forecast 2021	2% annual growth													Total:	18676
1	Mountain View Ave	Barton Road	AM	170	410	89	316	322	367	194	489	93	153	984	236	3823
4	California Street	Redlands Blvd	AM	102	372	11	308	340	150	105	179	293	47	493	350	2750
5	California Street	Barton Road	AM	0	0	0	296	0	267	166	626	0	0	1157	381	2893
1	Mountain View Ave	Barton Road	PM	185	371	156	328	360	196	302	1137	125	215	566	183	4124
4	California Street	Redlands Blvd	PM	56	348	35	355	259	101	259	593	199	80	497	526	3308
5	California Street	Barton Road	PM	0	0	0	375	0	205	262	1440	0	0	703	249	3234
	Count 2021	11/30/2021													Total:	20132
1	Mountain View Ave	Barton Road	AM	139	347	94	279	328	295	116	474	68	141	765	199	3245
4	California Street	Redlands Blvd	AM	152	398	37	244	489	191	127	245	197	65	388	202	2735
5	California Street	Barton Road	AM	0	0	0	472	0	269	225	687	0	0	932	431	3016
1	Mountain View Ave	Barton Road	PM	160	337	112	279	288	140	261	928	120	226	510	199	3560
4	California Street	Redlands Blvd	PM	116	507	88	243	346	113	204	647	164	87	542	284	3341
5	California Street	Barton Road	PM	0	0	0	351	0	175	342	1217	0	0	678	341	3104
															Total:	19001

2018 to Forecast 2021

Growth RATE= (1+Growth factor)^(No years)	2%	Months	46
Growth = Existing * Growth Rate	1.078	Years	3.8

Adjusted 2021 Factor 1.05952

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Loma Linda	PROJECT #:	SC3198
11/30/21	NORTH & SOUTH:	Mountain View	LOCATION #:	1
TUESDAY	EAST & WEST:	Barton	CONTROL:	SIGNAL

	NOTES:											
PCE Adjusted	Class	1	2	3	4	5	6			AM / PM / MD / OTHER / OTHER	◄ W	▲ N / S ▼ / E ►
	Factor	1	1.5	2	3	2	2					

		NORTHBOUND Mountain View			SOUTHBOUND Mountain View			EASTBOUND Barton			WESTBOUND Barton			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 2	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	17	52	21	38	48	48	21	91	13	18	128	24	516
	7:15 AM	36	70	13	60	74	61	29	129	20	28	167	39	724
	7:30 AM	35	112	18	62	114	73	21	145	17	23	196	59	873
	7:45 AM	40	99	40	74	81	95	39	110	17	49	225	56	921
	8:00 AM	29	67	23	83	60	67	28	90	14	42	178	46	724
	8:15 AM	23	50	27	66	49	54	27	128	14	36	200	29	701
	8:30 AM	25	59	23	63	54	69	38	116	13	47	169	44	717
	8:45 AM	27	69	23	68	48	59	35	86	15	47	148	45	668
	VOLUMES	231	576	187	512	526	524	236	893	123	288	1,409	340	5,843
	APPROACH %	23%	58%	19%	33%	34%	34%	19%	71%	10%	14%	69%	17%	
	APP/DEPART	993	/	1,151	1,562	/	937	1,252	/	1,592	2,036	/	2,163	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	139	347	94	279	328	295	116	474	68	141	765	199	3,242
	APPROACH %	24%	60%	16%	31%	36%	33%	18%	72%	10%	13%	69%	18%	
	PEAK HR FACTOR		0.815			0.905			0.901			0.839		0.880
	APP/DEPART	579	/	661	901	/	537	658	/	846	1,105	/	1,199	0
PM	4:00 PM	49	99	22	74	67	34	71	231	41	61	145	55	947
	4:15 PM	45	71	27	71	66	28	56	216	32	73	133	45	859
	4:30 PM	31	83	25	57	77	36	80	257	26	48	120	50	888
	4:45 PM	36	85	38	78	79	42	55	225	23	45	112	49	864
	5:00 PM	51	100	38	67	73	30	49	228	34	60	140	60	927
	5:15 PM	46	67	36	69	65	32	53	250	27	38	136	31	848
	5:30 PM	39	80	31	73	86	37	53	242	29	37	113	35	854
	5:45 PM	49	50	23	60	61	31	50	176	29	46	138	40	752
	VOLUMES	344	633	240	548	571	269	465	1,823	239	406	1,036	365	6,937
	APPROACH %	28%	52%	20%	39%	41%	19%	18%	72%	9%	22%	57%	20%	
	APP/DEPART	1,217	/	1,463	1,388	/	1,216	2,527	/	2,610	1,806	/	1,649	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	160	337	112	279	288	140	261	928	120	226	510	199	3,557
	APPROACH %	26%	55%	18%	40%	41%	20%	20%	71%	9%	24%	55%	21%	
	PEAK HR FACTOR		0.899			0.891			0.904			0.895		0.940
	APP/DEPART	608	/	796	706	/	634	1,309	/	1,318	935	/	810	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Loma Linda	PROJECT #:	SC3198
11/30/21	NORTH & SOUTH:	California	LOCATION #:	4
TUESDAY	EAST & WEST:	Redlands	CONTROL:	SIGNAL

	NOTES:											
PCE Adjusted	Class	1	2	3	4	5	6			AM / PM / MD / OTHER / OTHER	▲ N / ◄ W / E ► / S ▼	
	Factor	1	1.5	2	3	2	2					

		NORTHBOUND (California)			SOUTHBOUND (California)			EASTBOUND (Redlands)			WESTBOUND (Redlands)			
	LANES:	NL 1	NT 1.5	NR 1.5	SL 1	ST 1.5	SR 0.5	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	24	103	2	52	97	33	11	38	13	3	50	47	470
	7:15 AM	34	95	5	38	129	35	16	46	24	6	69	40	534
	7:30 AM	32	106	9	46	129	48	36	43	60	25	89	44	667
	7:45 AM	44	113	5	63	136	61	35	57	99	12	117	53	791
	8:00 AM	38	91	7	62	108	50	29	73	24	12	84	55	630
	8:15 AM	38	89	16	74	117	32	28	73	14	17	99	51	645
	8:30 AM	33	98	14	75	118	31	24	70	22	25	97	53	659
	8:45 AM	20	91	6	82	116	45	33	75	16	10	100	69	660
	VOLUMES	261	783	64	490	948	334	210	474	271	109	703	411	5,054
	APPROACH %	24%	71%	6%	28%	54%	19%	22%	50%	28%	9%	58%	34%	
	APP/DEPART	1,107	/	1,403	1,772	/	1,327	954	/	1,027	1,222	/	1,297	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	152	398	37	244	489	191	127	245	197	65	388	202	2,732
	APPROACH %	26%	68%	6%	26%	53%	21%	22%	43%	35%	10%	59%	31%	
	PEAK HR FACTOR		0.906			0.891			0.750			0.904		0.863
	APP/DEPART	586	/	727	924	/	751	569	/	526	655	/	730	0
PM	04:00 PM	22	126	22	54	95	25	72	148	54	16	138	80	851
	4:15 PM	18	109	15	53	75	27	61	165	30	17	131	58	757
	4:30 PM	19	110	22	59	96	27	59	157	40	26	138	64	814
	4:45 PM	23	168	31	63	91	28	44	142	40	23	139	63	852
	5:00 PM	48	132	14	61	72	27	57	172	41	20	121	90	852
	5:15 PM	26	98	21	61	88	32	45	177	45	18	145	68	822
	5:30 PM	31	92	25	42	87	25	48	180	31	28	133	55	776
	5:45 PM	23	87	24	72	98	32	33	151	23	20	125	55	741
	VOLUMES	209	920	174	463	700	222	418	1,290	301	168	1,068	532	6,463
	APPROACH %	16%	71%	13%	33%	51%	16%	21%	64%	15%	10%	60%	30%	
	APP/DEPART	1,302	/	1,870	1,385	/	1,169	2,009	/	1,926	1,768	/	1,498	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	116	507	88	243	346	113	204	647	164	87	542	284	3,340
	APPROACH %	16%	71%	12%	35%	49%	16%	20%	64%	16%	10%	59%	31%	
	PEAK HR FACTOR		0.803			0.967			0.945			0.988		0.980
	APP/DEPART	710	/	995	702	/	597	1,015	/	977	913	/	771	0

California

NORTH SIDE

Redlands WEST SIDE EAST SIDE **Redlands**

SOUTH SIDE

California

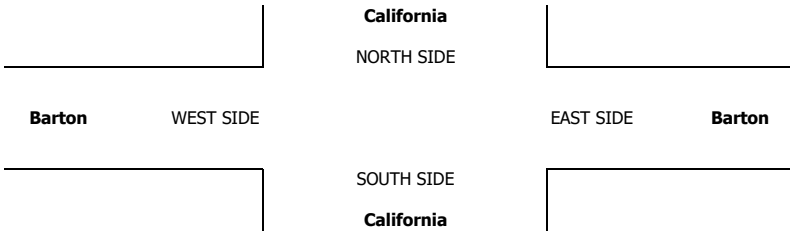
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Loma Linda	PROJECT #:	SC3198
11/30/21	NORTH & SOUTH:	California	LOCATION #:	5
TUESDAY	EAST & WEST:	Barton	CONTROL:	SIGNAL

	NOTES:												
PCE	Class	1	2	3	4	5	6			AM		▲ N	
Adjusted	Factor	1	1.5	2	3	2	2			PM			
										MD	◄ W		E ►
										OTHER		S	
										OTHER		▼	

		NORTHBOUND California			SOUTHBOUND California			EASTBOUND Barton			WESTBOUND Barton			
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 2	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	101	0	43	42	115	0	0	151	85	536
	7:15 AM	0	0	0	63	0	54	48	147	0	0	197	104	612
	7:30 AM	0	0	0	115	0	72	66	153	0	0	203	117	725
	7:45 AM	0	0	0	113	0	66	68	185	0	0	300	108	839
	8:00 AM	0	0	0	156	0	85	48	188	0	0	196	85	757
	8:15 AM	0	0	0	89	0	47	43	162	0	0	234	121	694
	8:30 AM	0	0	0	77	0	69	38	115	0	0	218	118	633
	8:45 AM	0	0	0	79	0	52	43	135	0	0	179	68	554
	VOLUMES	0	0	0	792	0	486	395	1,198	0	0	1,675	804	5,349
	APPROACH %	0%	0%	0%	62%	0%	38%	25%	75%	0%	0%	68%	32%	
	APP/DEPART	0	/	1,199	1,277	/	0	1,593	/	1,990	2,479	/	2,161	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	0	0	472	0	269	225	687	0	0	932	431	3,014
	APPROACH %	0%	0%	0%	64%	0%	36%	25%	75%	0%	0%	68%	32%	
	PEAK HR FACTOR		0.000			0.770			0.901			0.837		0.898
	APP/DEPART	0	/	655	741	/	0	912	/	1,159	1,362	/	1,200	0
PM	04:00 PM	0	0	0	97	0	42	84	245	0	0	195	86	748
	4:15 PM	0	0	0	92	0	41	68	263	0	0	172	89	725
	4:30 PM	0	0	0	88	0	47	83	267	0	0	135	88	707
	4:45 PM	0	0	0	82	0	49	107	299	0	0	162	101	800
	5:00 PM	0	0	0	65	0	47	84	301	0	0	219	116	831
	5:15 PM	0	0	0	107	0	35	73	325	0	0	150	56	745
	5:30 PM	0	0	0	98	0	44	78	293	0	0	147	68	727
	5:45 PM	0	0	0	85	0	54	55	238	0	0	169	54	653
	VOLUMES	0	0	0	712	0	359	631	2,229	0	0	1,348	657	5,935
	APPROACH %	0%	0%	0%	66%	0%	34%	22%	78%	0%	0%	67%	33%	
	APP/DEPART	0	/	1,288	1,071	/	0	2,860	/	2,941	2,004	/	1,707	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	0	0	0	351	0	175	342	1,217	0	0	678	341	3,103
	APPROACH %	0%	0%	0%	67%	0%	33%	22%	78%	0%	0%	67%	33%	
	PEAK HR FACTOR		0.000			0.925			0.960			0.761		0.933
	APP/DEPART	0	/	683	526	/	0	1,559	/	1,568	1,018	/	853	0



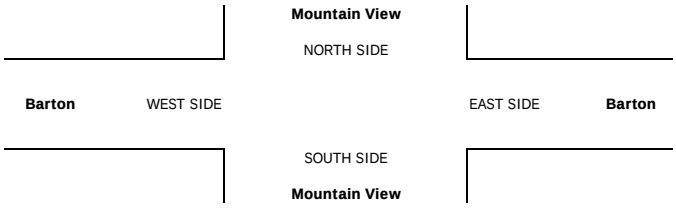
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Loma Linda	PROJECT #:	SC1591
1/31/18	NORTH & SOUTH:	Mountain View	LOCATION #:	6
WEDNESDAY	EAST & WEST:	Barton	CONTROL:	SIGNAL

	NOTES:												
PCE	Class	1	2	3	4	5	6			AM		▲ N	
Adjusted	Factor	1	1.5	2	3	2	2			PM			
										MD	◄ W		E ►
										OTHER		S	
										OTHER		▼	

		NORTHBOUND Mountain View			SOUTHBOUND Mountain View			EASTBOUND Barton			WESTBOUND Barton				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 2	ET 2	ER 1	WL 1	WT 2	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	38	60	24	59	54	53	28	100	20	24	168	24	651					0
	7:15 AM	28	89	16	65	92	59	41	87	18	15	190	31	727					0
	7:30 AM	39	131	12	77	84	72	47	114	29	33	230	57	924					0
	7:45 AM	53	98	29	64	73	103	42	147	16	43	292	74	1,030					0
	8:00 AM	41	76	20	68	72	82	44	83	21	30	205	58	796					0
	8:15 AM	26	75	23	85	71	84	47	111	21	37	188	31	797					0
	8:30 AM	40	68	23	52	49	82	46	120	20	35	194	55	782					0
	8:45 AM	28	59	17	55	68	95	54	106	21	42	167	31	740					0
	9:00 AM	0	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					0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	VOLUMES	292	655	163	522	561	629	347	867	164	257	1,631	360	6,445	0	0	0	0	0
	APPROACH %	26%	59%	15%	30%	33%	37%	25%	63%	12%	11%	73%	16%						
	APP/DEPART	1,109	/	1,361	1,712	/	982	1,378	/	1,551	2,248	/	2,551	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	158	380	83	293	299	340	180	454	86	142	913	219	3,546					
	APPROACH %	25%	61%	13%	31%	32%	37%	25%	63%	12%	11%	72%	17%						
	PEAK HR FACTOR		0.852			0.972			0.880			0.782		0.861					
	APP/DEPART	621	/	778	932	/	527	720	/	830	1,274	/	1,411	0					
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:00 PM	35	94	26	69	73	60	87	219	23	39	123	36	882					0
	4:15 PM	33	73	30	81	90	45	69	228	33	50	158	32	921					0
	4:30 PM	31	80	25	60	76	50	68	259	36	36	140	46	904					0
	4:45 PM	35	73	32	79	99	56	67	267	31	43	120	43	943					0
	5:00 PM	49	91	48	74	70	42	75	263	30	48	151	45	983					0
	5:15 PM	38	85	32	86	76	41	68	265	29	59	153	42	971					0
	5:30 PM	50	96	34	66	90	44	70	261	26	49	102	41	927					0
	5:45 PM	57	85	27	74	81	50	46	266	30	48	137	33	933					0
	VOLUMES	327	675	252	588	654	387	549	2,026	237	371	1,083	316	7,462	0	0	0	0	0
	APPROACH %	26%	54%	20%	36%	40%	24%	20%	72%	8%	21%	61%	18%						
	APP/DEPART	1,253	/	1,539	1,628	/	1,261	2,811	/	2,865	1,770	/	1,797	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	172	344	145	304	334	182	280	1,055	116	199	525	170	3,823					
	APPROACH %	26%	52%	22%	37%	41%	22%	19%	73%	8%	22%	59%	19%						
	PEAK HR FACTOR		0.880			0.878			0.988			0.881		0.972					
	APP/DEPART	660	/	793	820	/	649	1,450	/	1,504	893	/	878	0					



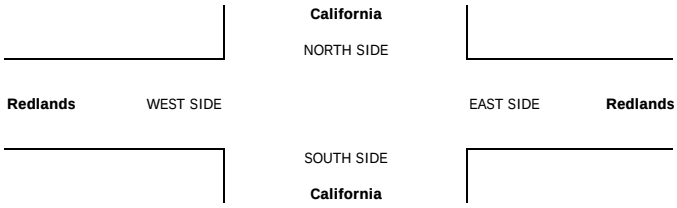
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Loma Linda	PROJECT #:	SC1591
1/31/18	NORTH & SOUTH:	California	LOCATION #:	11
WEDNESDAY	EAST & WEST:	Redlands	CONTROL:	SIGNAL

	NOTES:											
PCE	Class	1	2	3	4	5	6			AM		▲ N
Adjusted	Factor	1	1.5	2	3	2	2			PM MD	◄ W	E ►
										OTHER		S
										OTHER		▼

	NORTHBOUND (California)			SOUTHBOUND (California)			EASTBOUND (Redlands)			WESTBOUND (Redlands)				U-TURNS				
LANES:	NL 0.3	NT 0.3	NR 0.3	SL 1	ST 0.5	SR 0.5	EL 1	ET 1.5	ER 0.5	WL 1	WT 2	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM 7:00 AM	7	104	1	49	53	48	34	30	33	8	65	76	507					0
7:15 AM	16	77	2	54	58	38	30	35	56	10	123	65	561					0
7:30 AM	23	91	2	57	81	35	21	38	83	15	108	81	635					0
7:45 AM	19	81	1	68	86	35	29	42	93	10	160	72	694					0
8:00 AM	31	91	3	69	73	26	20	41	47	4	99	75	577					0
8:15 AM	22	82	4	93	77	43	27	46	49	15	91	97	643					0
8:30 AM	12	92	5	70	62	33	22	40	42	4	89	91	561					0
8:45 AM	22	89	9	81	42	32	35	57	40	6	94	78	583					0
9:00 AM	0	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					0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
VOLUMES	151	706	27	539	529	289	217	328	443	72	828	634	4,760	0	0	0	0	0
APPROACH %	17%	80%	3%	40%	39%	21%	22%	33%	45%	5%	54%	41%						
APP/DEPART	884	/	1,557	1,357	/	1,044	987	/	893	1,534	/	1,267	0					
BEGIN PEAK HR		7:30 AM																
VOLUMES	95	345	10	286	315	139	97	166	272	44	457	325	2,549					
APPROACH %	21%	77%	2%	39%	43%	19%	18%	31%	51%	5%	55%	39%						
PEAK HR FACTOR		0.902			0.872			0.819			0.853		0.918					
APP/DEPART	449	/	766	740	/	631	534	/	462	826	/	691	0					
PM 03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
4:00 PM	3	89	13	62	58	17	67	110	50	9	102	98	676					0
4:15 PM	12	86	8	82	60	18	52	104	63	19	125	96	722					0
4:30 PM	10	77	7	89	60	47	74	127	48	13	122	108	779					0
4:45 PM	11	92	10	74	54	19	72	126	51	18	116	109	749					0
5:00 PM	15	79	8	84	54	21	54	139	58	20	134	152	817					0
5:15 PM	19	92	7	91	71	34	49	122	41	10	103	120	757					0
5:30 PM	8	61	7	80	61	21	66	163	35	26	109	107	743					0
5:45 PM	16	71	8	68	63	13	36	98	41	26	82	91	611					0
VOLUMES	92	646	67	630	479	188	467	988	386	141	890	880	5,851	0	0	0	0	0
APPROACH %	11%	80%	8%	49%	37%	15%	25%	54%	21%	7%	47%	46%						
APP/DEPART	805	/	1,992	1,296	/	1,005	1,841	/	1,685	1,910	/	1,170	0					
BEGIN PEAK HR		4:30 PM																
VOLUMES	54	339	32	338	238	120	247	514	198	61	474	489	3,101					
APPROACH %	13%	80%	8%	49%	34%	17%	26%	54%	21%	6%	46%	48%						
PEAK HR FACTOR		0.906			0.889			0.959			0.838		0.949					
APP/DEPART	424	/	1,075	695	/	497	959	/	883	1,024	/	647	0					



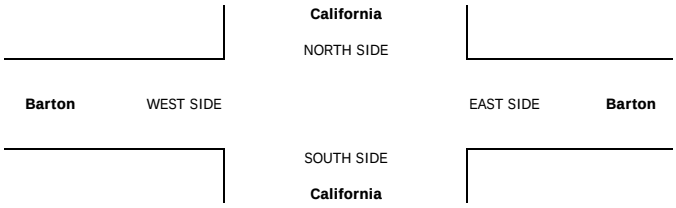
INTERSECTION TURNING MOVEMENT COUNTS

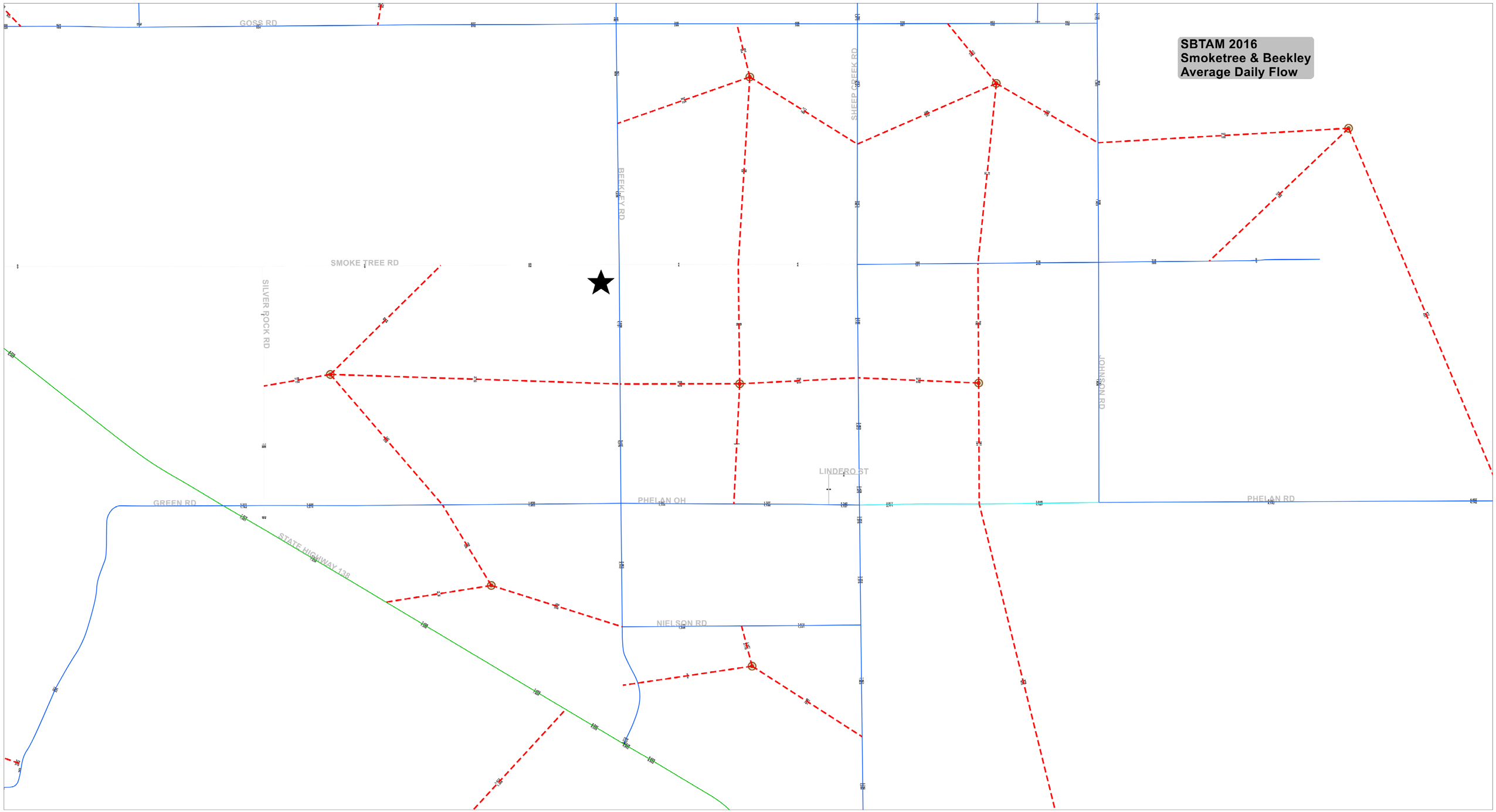
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

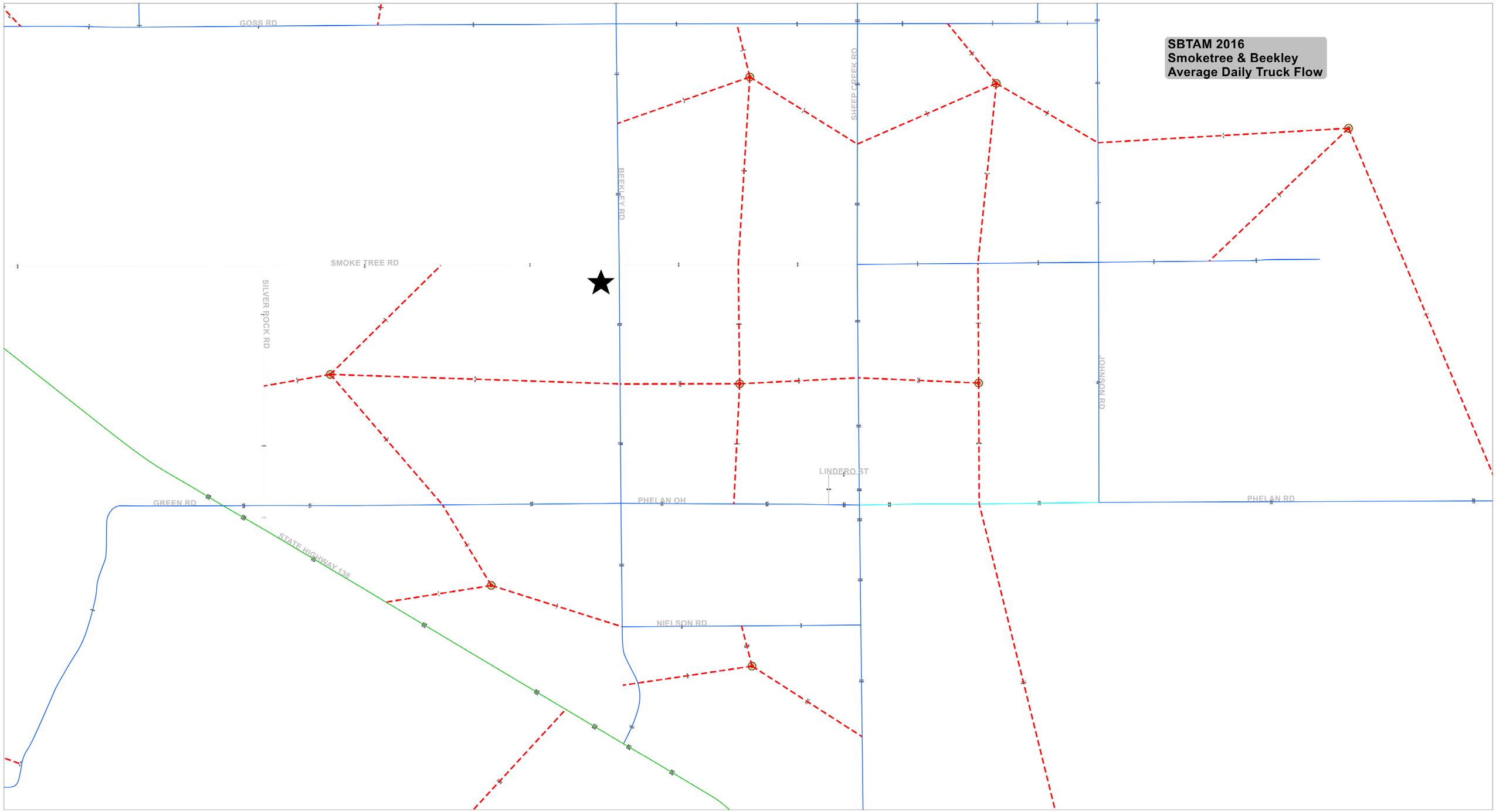
DATE:	LOCATION:	Loma Linda	PROJECT #:	SC1591
1/31/18	NORTH & SOUTH:	California	LOCATION #:	16
WEDNESDAY	EAST & WEST:	Barton	CONTROL:	SIGNAL

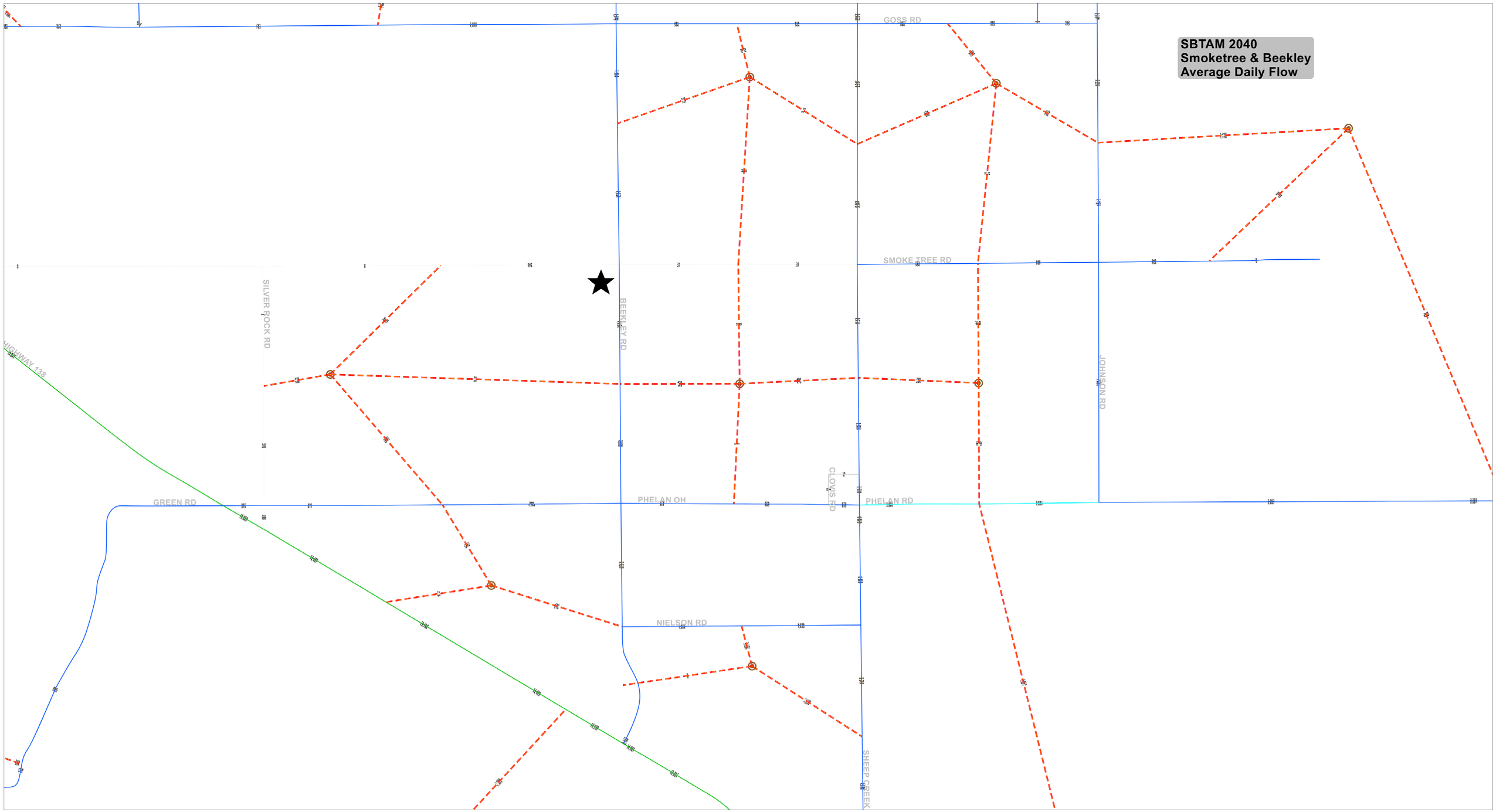
	NOTES:									AM		▲ N	
PCE	Class	1	2	3	4	5	6			PM			
Adjusted	Factor	1	1.5	2	3	2	2			MD	◄ W		E ►
										OTHER		S	
										OTHER		▼	

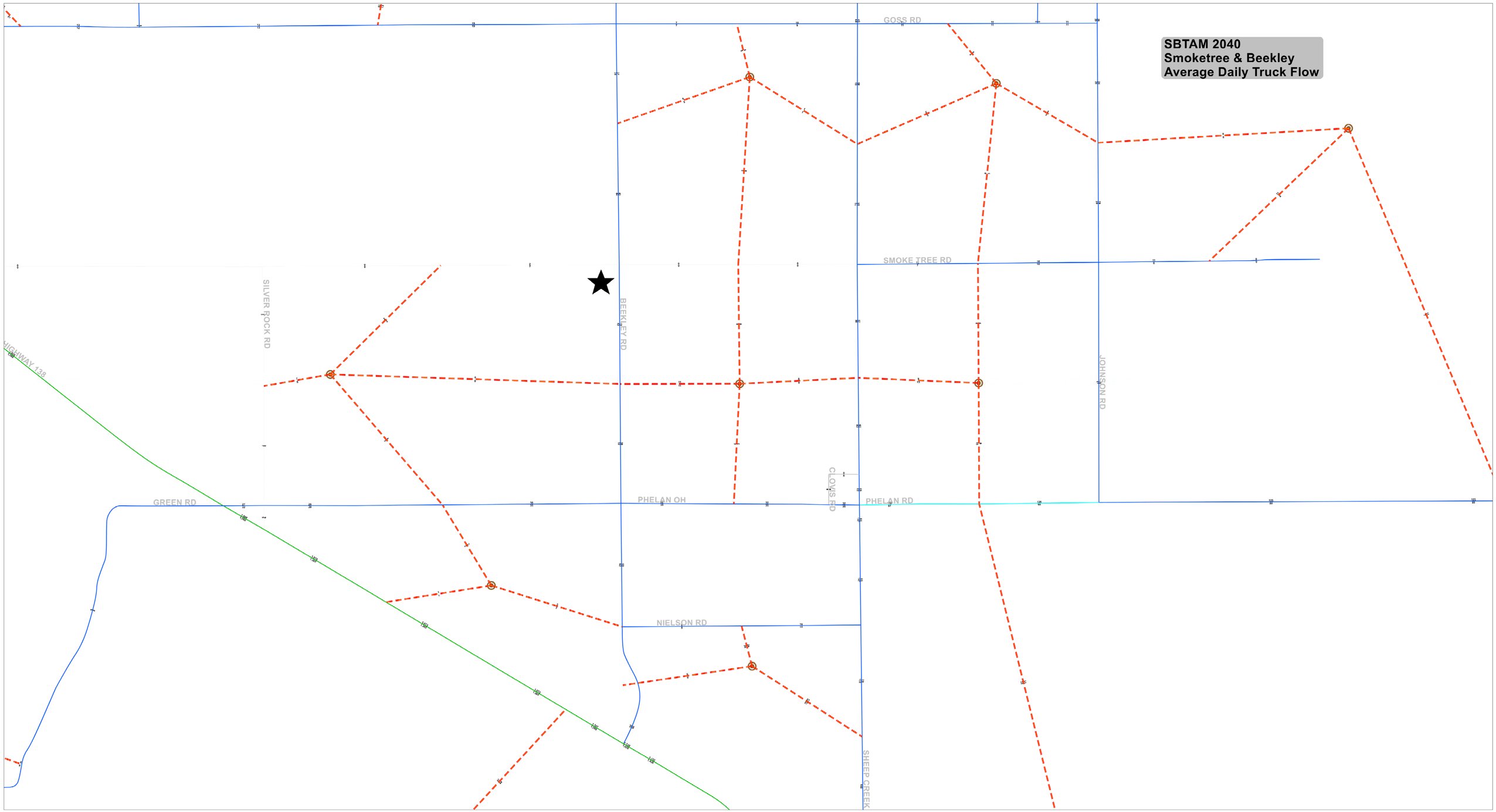
		NORTHBOUND California			SOUTHBOUND California			EASTBOUND Barton			WESTBOUND Barton				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 2	EL 1	ET 2	ER X	WL 1	WT 2	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	82	0	45	35	128	0	0	166	67	522					0
	7:15 AM	0	0	0	59	0	49	28	121	0	0	251	91	598					0
	7:30 AM	0	0	0	48	0	84	56	148	0	0	286	128	749					0
	7:45 AM	0	0	0	103	0	65	48	178	0	0	294	71	758					0
	8:00 AM	0	0	0	66	0	50	23	134	0	0	242	64	577					0
	8:15 AM	0	0	0	77	0	46	31	162	0	0	210	75	599					0
	8:30 AM	0	0	0	70	0	42	40	128	0	0	219	94	592					0
	8:45 AM	0	0	0	49	0	30	24	136	0	0	196	81	514					0
	9:00 AM	0	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					0
	9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	VOLUMES	0	0	0	552	0	409	283	1,133	0	0	1,864	669	4,908	0	0	0	0	0
	APPROACH %	0%	0%	0%	57%	0%	43%	20%	80%	0%	0%	74%	26%						
	APP/DEPART	0	/	951	961	/	0	1,416	/	1,685	2,532	/	2,273	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	0	0	293	0	244	157	621	0	0	1,032	337	2,683					
	APPROACH %	0%	0%	0%	55%	0%	45%	20%	80%	0%	0%	75%	25%						
	PEAK HR FACTOR		0.000			0.801			0.860			0.826		0.885					
	APP/DEPART	0	/	494	537	/	0	778	/	914	1,369	/	1,276	0					
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0					0
	4:00 PM	0	0	0	72	0	44	41	245	0	0	153	53	606					0
	4:15 PM	0	0	0	70	0	34	55	271	0	0	169	37	635					0
	4:30 PM	0	0	0	81	0	38	64	265	0	0	157	69	673					0
	4:45 PM	0	0	0	103	0	35	53	321	0	0	138	59	708					0
	5:00 PM	0	0	0	94	0	43	64	357	0	0	181	84	821					0
	5:15 PM	0	0	0	96	0	49	53	335	0	0	177	43	750					0
	5:30 PM	0	0	0	85	0	46	60	313	0	0	142	50	694					0
	5:45 PM	0	0	0	75	0	54	68	332	0	0	154	54	735					0
	VOLUMES	0	0	0	673	0	341	455	2,438	0	0	1,268	447	5,620	0	0	0	0	0
	APPROACH %	0%	0%	0%	66%	0%	34%	16%	84%	0%	0%	74%	26%						
	APP/DEPART	0	/	901	1,014	/	0	2,893	/	3,111	1,714	/	1,608	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	0	0	0	348	0	190	243	1,336	0	0	652	231	3,000					
	APPROACH %	0%	0%	0%	65%	0%	35%	15%	85%	0%	0%	74%	26%						
	PEAK HR FACTOR		0.000			0.934			0.940			0.834		0.914					
	APP/DEPART	0	/	474	538	/	0	1,579	/	1,684	883	/	842	0					



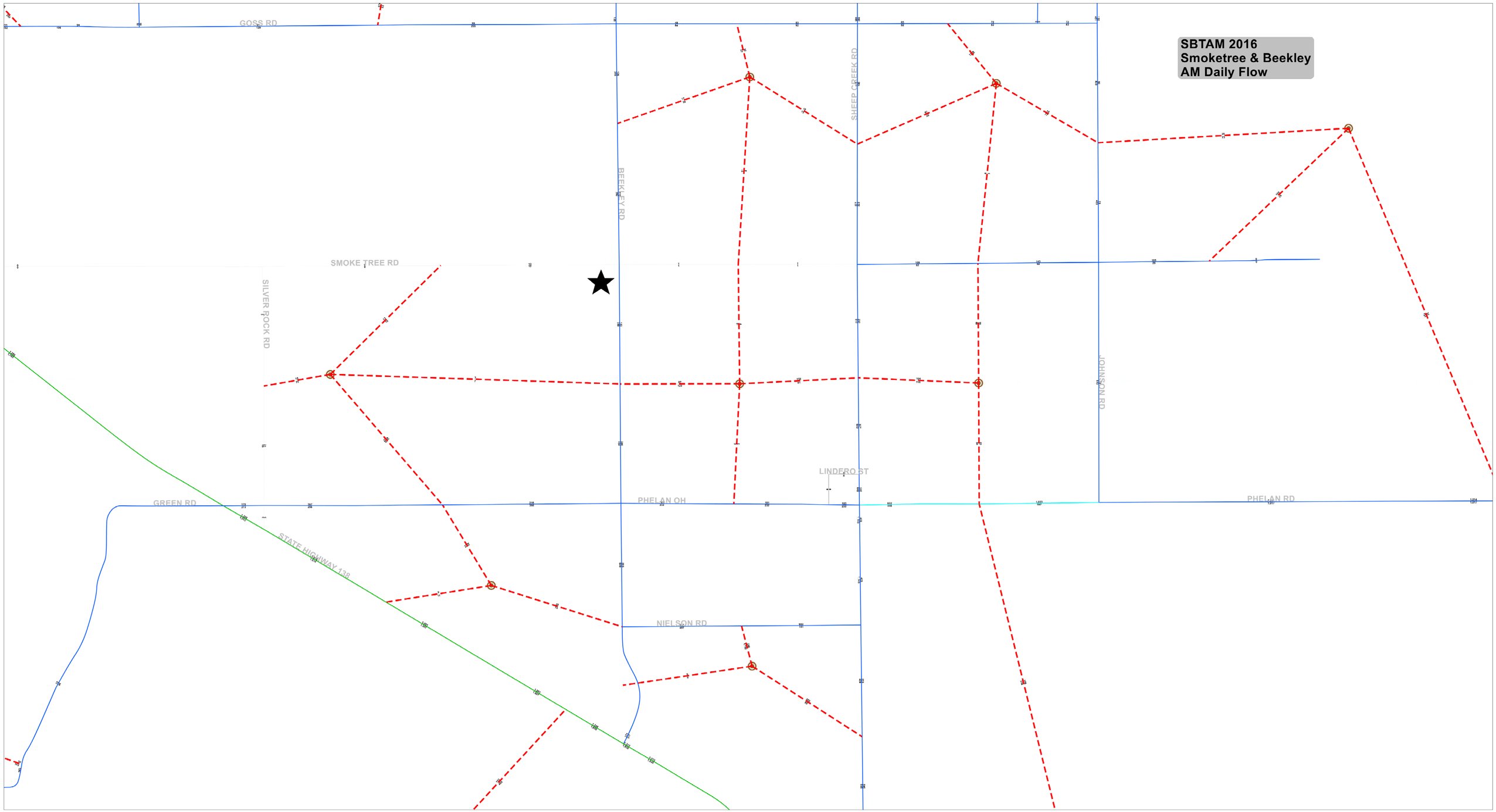

SBTAM 2016
Smoketree & Beekley
Average Daily Flow
GOSS RD
SHEEP CREEK RD
BEEKLEY RD
SMOKE TREE RD
SILVER ROCK RD
JOHNSON RD
LINDERO ST
PHELAN OH
PHELAN RD
GREEN RD
STATE HIGHWAY 138
NIELSON RD

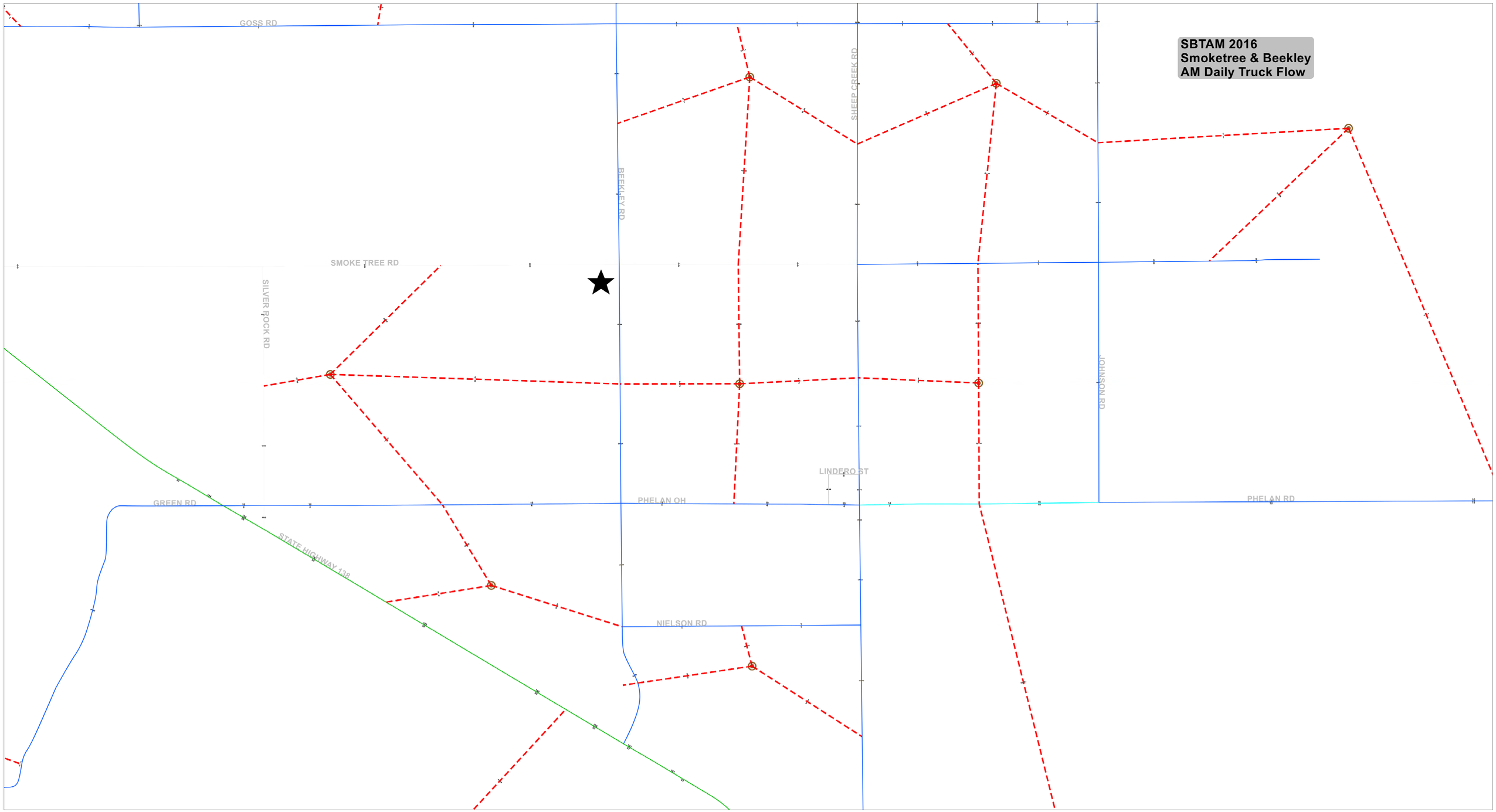

SBTAM 2016
Smoketree & Beekley
Average Daily Truck Flow
GOSS RD
BEEKLEY RD
SHEEP CREEK RD
JOHNSON RD
SMOKE TREE RD
SILVER ROCK RD
LINDERO ST
PHELAN OH
PHELAN RD
GREEN RD
STATE HIGHWAY 138
NIELSON RD

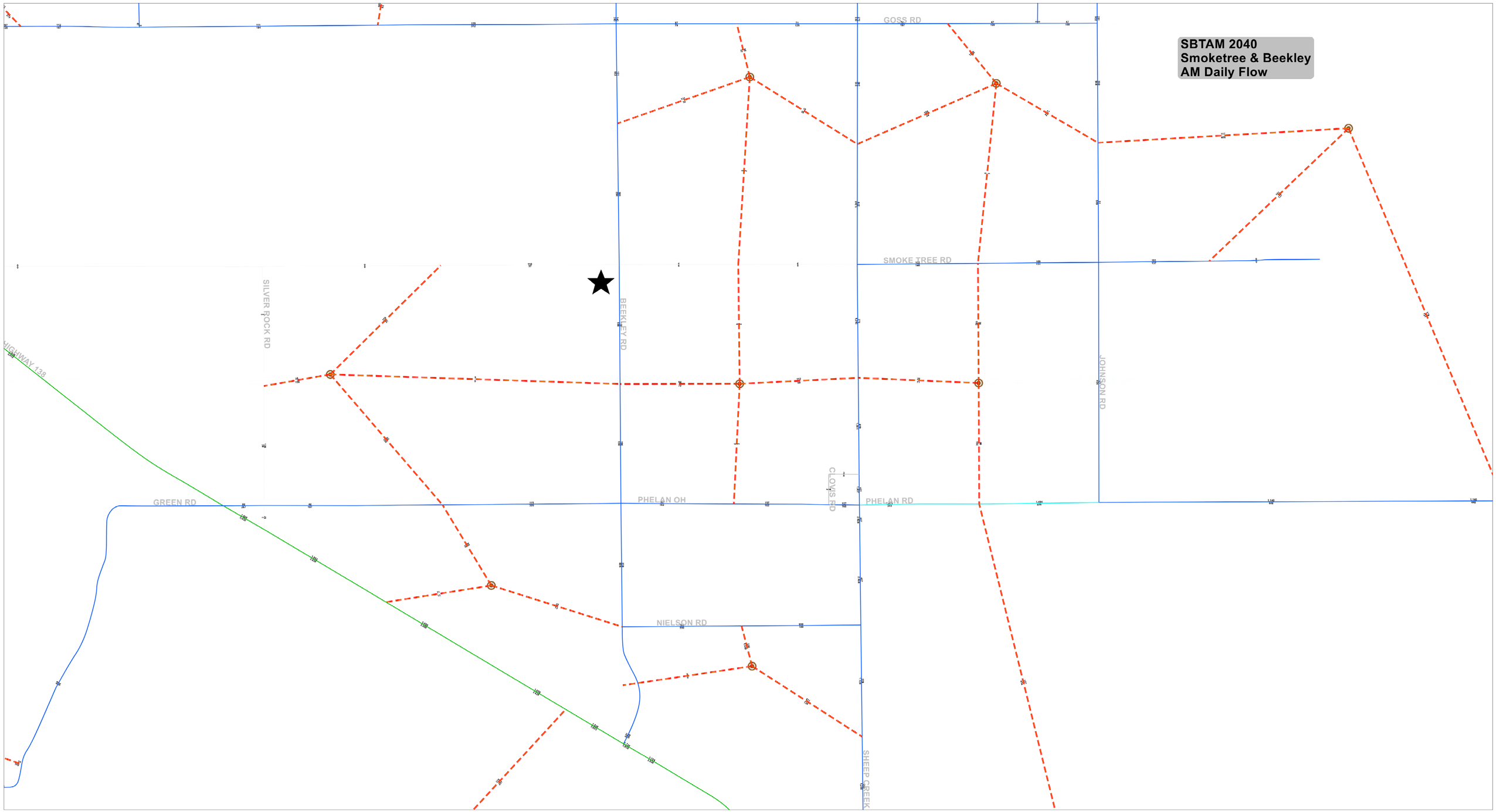

SBTAM 2040
Smoketree & Beekley
Average Daily Flow
GOSS RD
SMOKE TREE RD
SILVER ROCK RD
BEEKLEY RD
JOHNSON RD
HIGHWAY 138
GREEN RD
PHELAN OH
PHELAN RD
CLOVIS RD
NIELSON RD
SHEEP CREEK

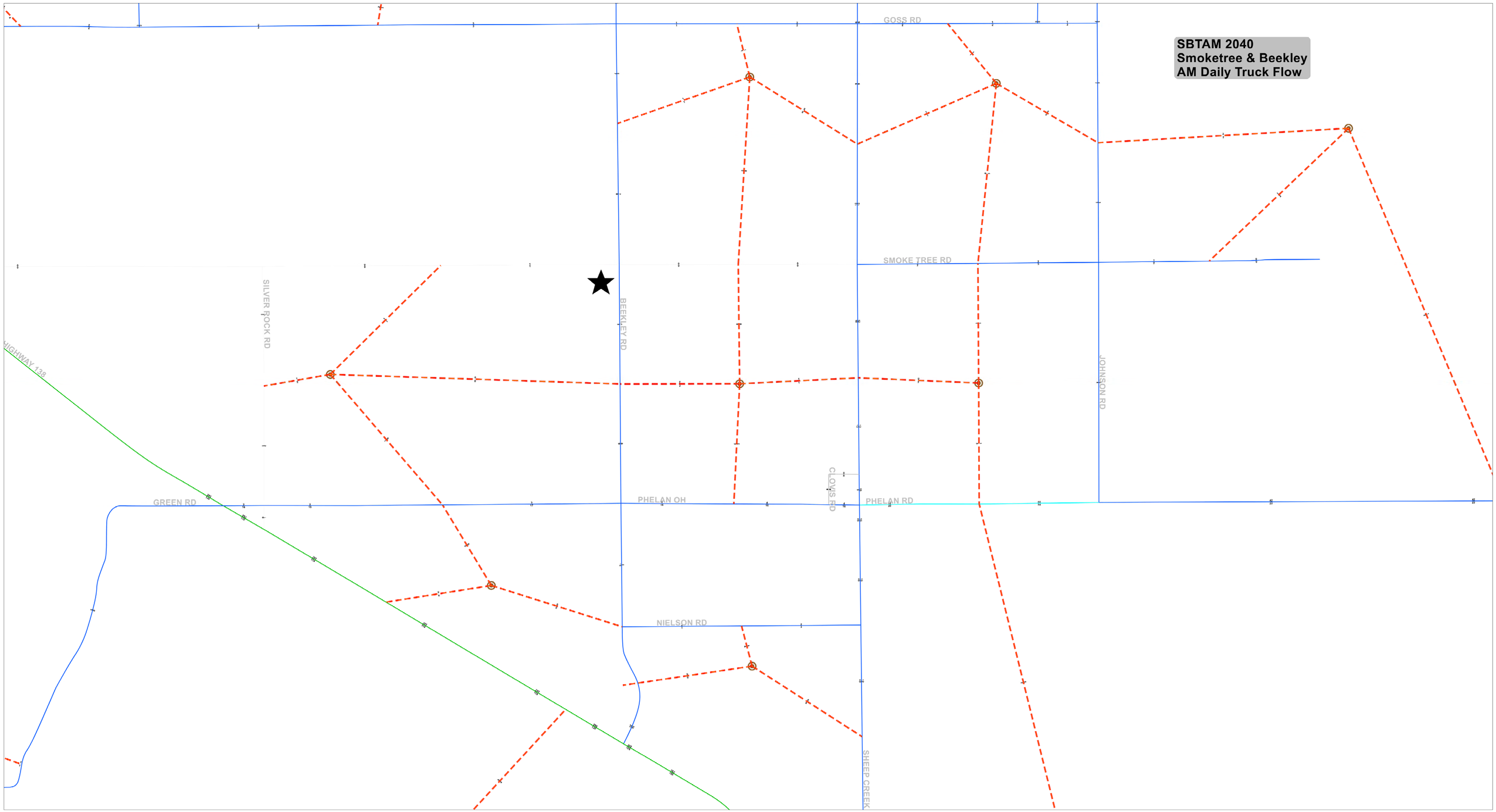

SBTAM 2040
Smoketree & Beekley
Average Daily Truck Flow
GOSS RD
SMOKE TREE RD
SILVER ROCK RD
BEEKLEY RD
JOHNSON RD
HIGHWAY 138
GREEN RD
PHELAN OH
PHELAN RD
CLOVIS RD
NIELSON RD
SHEEP CREEK

AM PEAK HOUR

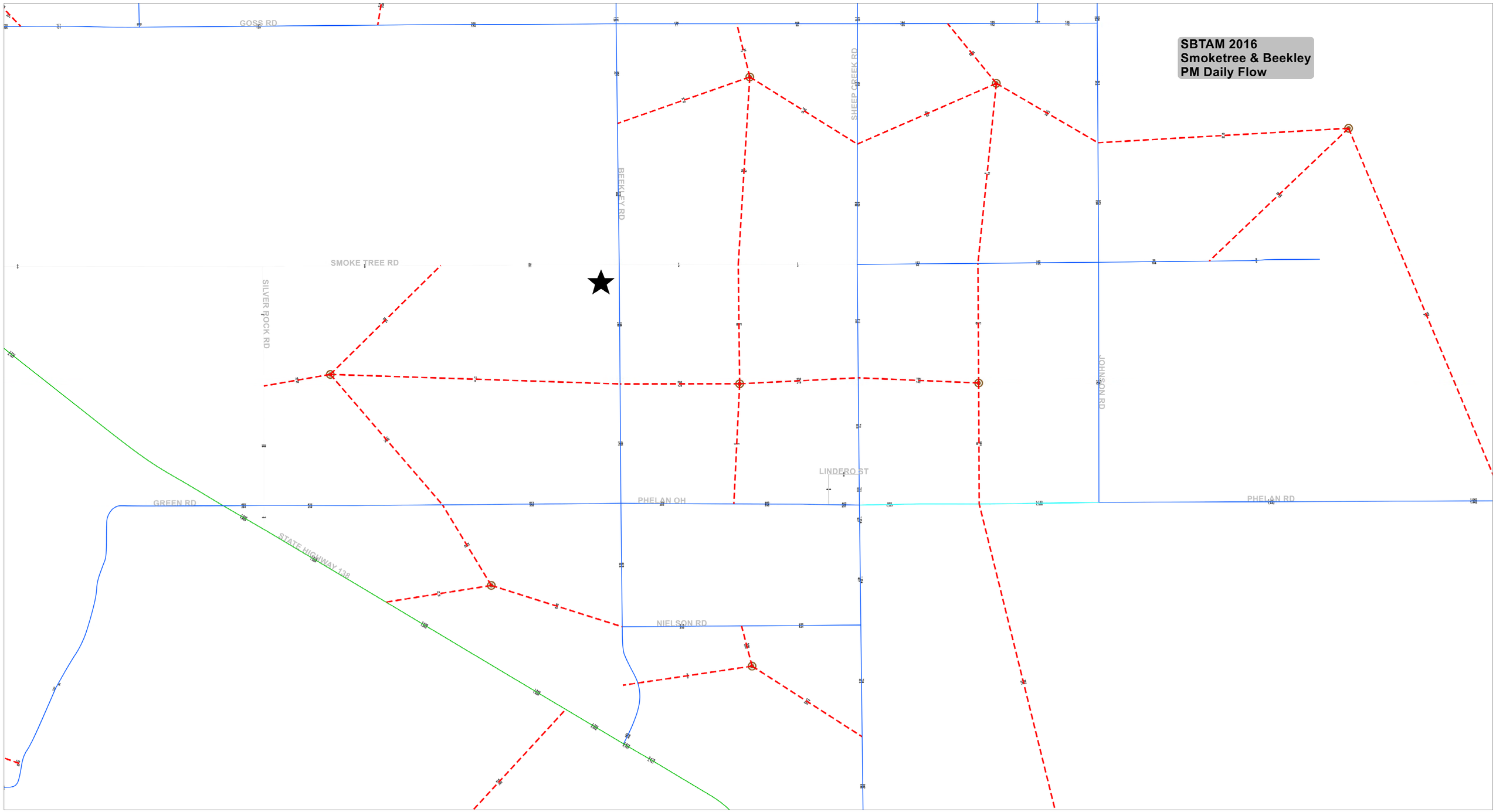

SBTAM 2016
Smoketree & Beekley
AM Daily Flow
GOSS RD
SHEEP CREEK RD
BEEKLEY RD
SMOKE TREE RD
SILVER ROCK RD
JOHNSON RD
LINDERO ST
PHELAN OH
PHELAN RD
GREEN RD
STATE HIGHWAY 138
NIELSON RD

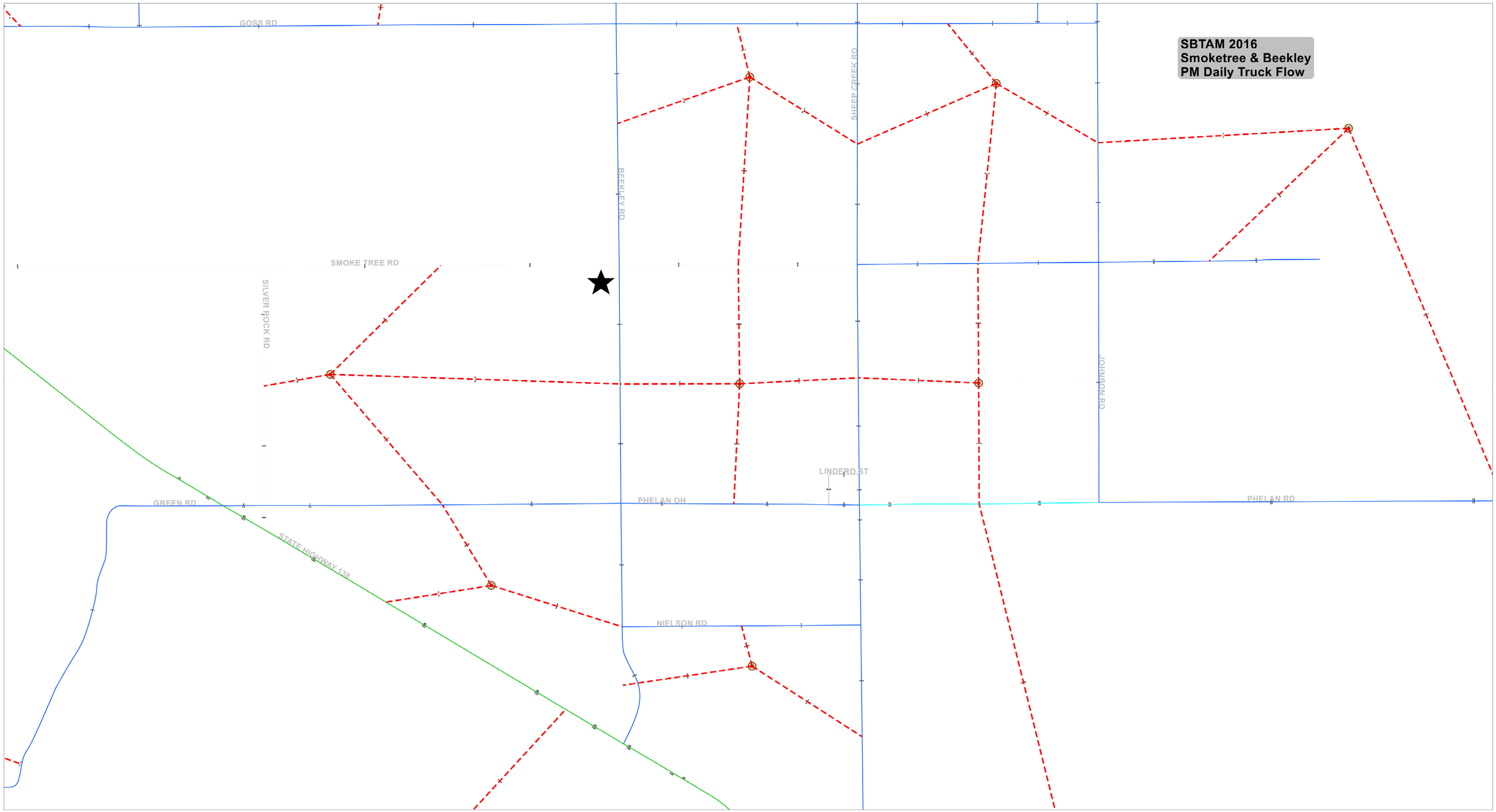

SBTAM 2016
Smoketree & Beekley
AM Daily Truck Flow
GOSS RD
SHEEP CREEK RD
BEEKLEY RD
SMOKE TREE RD
SILVER ROCK RD
JOHNSON RD
LINDERO ST
PHELAN OH
PHELAN RD
GREEN RD
STATE HIGHWAY 138
NIELSON RD

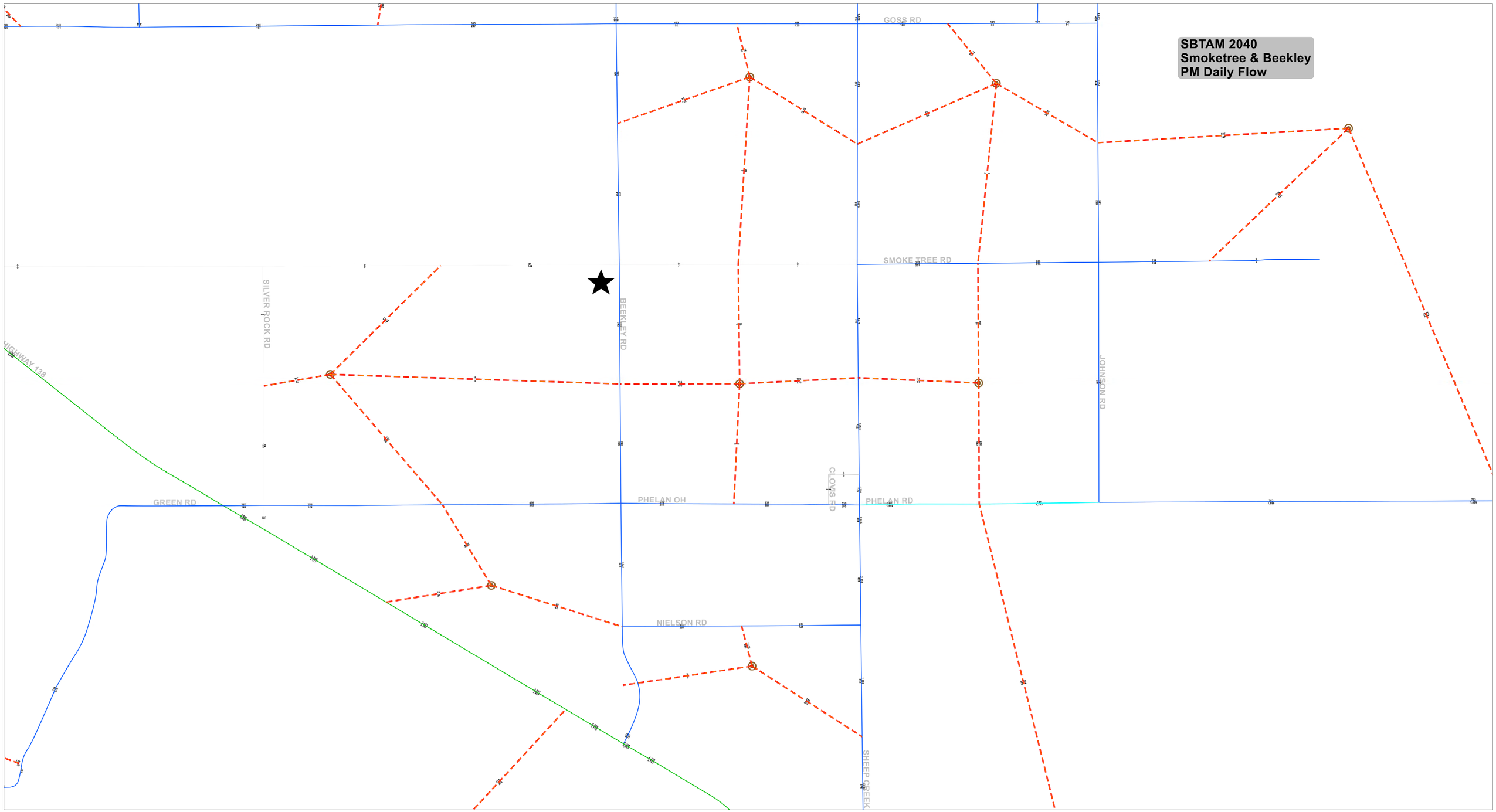

SBTAM 2040
Smoketree & Beekley
AM Daily Flow
GOSS RD
SMOKE TREE RD
SILVER ROCK RD
BEEKLEY RD
JOHNSON RD
HIGHWAY 138
GREEN RD
PHELAN OH
PHELAN RD
CLOVIS RD
NIELSON RD
SHEEP CREEK

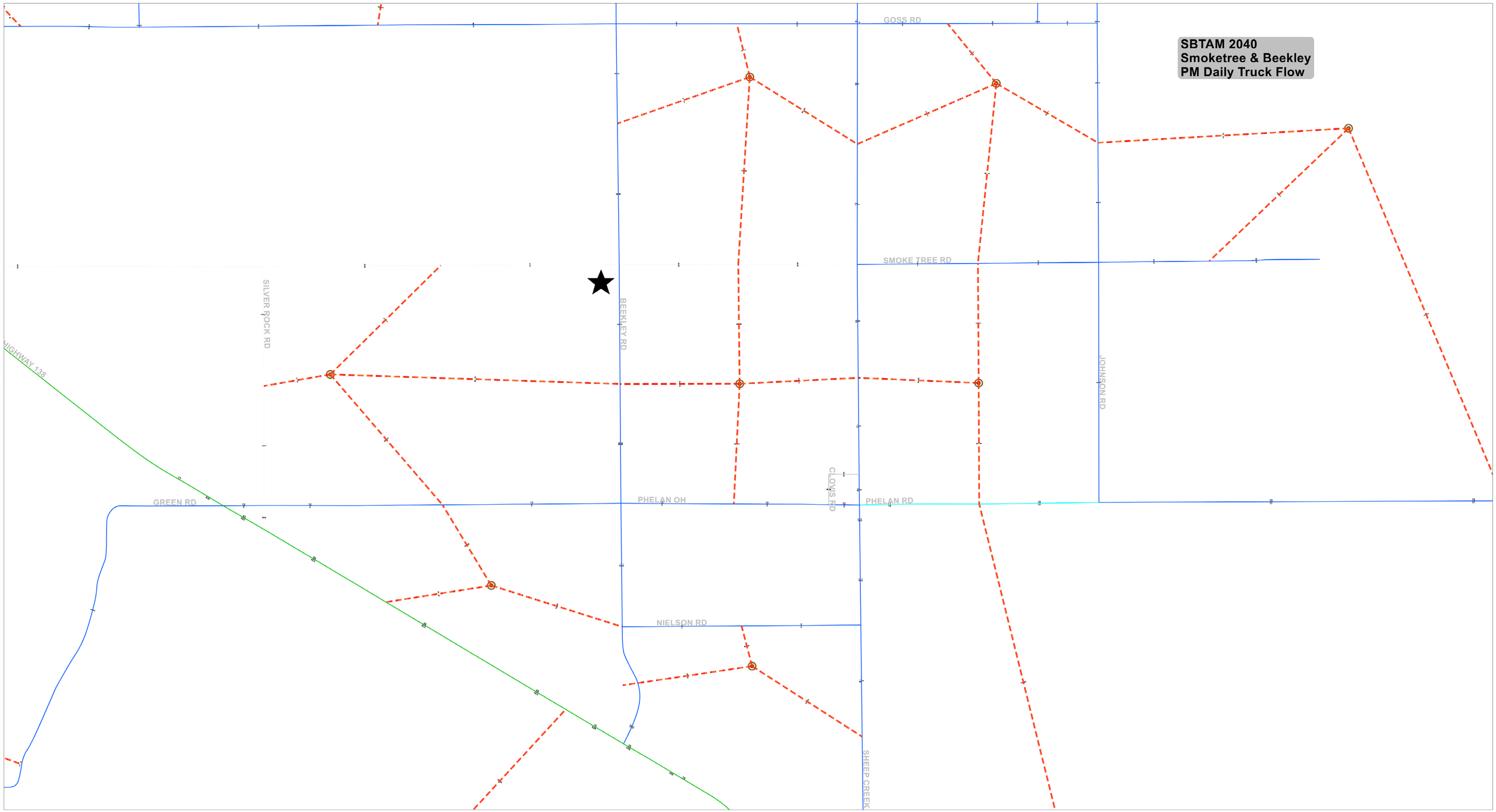

SBTAM 2040
Smoketree & Beekley
AM Daily Truck Flow
GOSS RD
SMOKE TREE RD
SILVER ROCK RD
BEEKLEY RD
JOHNSON RD
HIGHWAY 138
GREEN RD
PHELAN OH
PHELAN RD
CLOVIS RD
NIELSON RD
SHEEP CREEK

PM PEAK HOUR


SBTAM 2016
Smoketree & Beekley
PM Daily Flow
GOSS RD
SMOKE TREE RD
BEEKLEY RD
SHEEP CREEK RD
SILVER ROCK RD
JOHNSON RD
LINDERO ST
PHELAN OH
PHELAN RD
GREEN RD
STATE HIGHWAY 138
NIELSON RD


SBTAM 2016
Smoketree & Beekley
PM Daily Truck Flow
GOSS RD
SHEEP CREEK RD
BEEKLEY RD
SMOKE TREE RD
SILVER ROCK RD
JOHNSON RD
LINDERO ST
PHELAN OH
PHELAN RD
GREEN RD
STATE HIGHWAY 138
NIELSON RD


SBTAM 2040
Smoketree & Beekley
PM Daily Flow
GOSS RD
SMOKE TREE RD
SILVER ROCK RD
BEEKLEY RD
JOHNSON RD
HIGHWAY 138
GREEN RD
PHELAN OH
PHELAN RD
CLOVIS RD
NIELSON RD
SHEEP CREEK


SBTAM 2040
Smoketree & Beekley
PM Daily Truck Flow
GOSS RD
SMOKE TREE RD
SILVER ROCK RD
BEEKLEY RD
JOHNSON RD
HIGHWAY 138
GREEN RD
PHELAN OH
PHELAN RD
CLOVIS RD
NIELSON RD
SHEEP CREEK

APPENDIX E

TRAVEL DEMAND MODEL PLOTS

APPENDIX F

POST PROCESSING WORKSHEETS

AVERAGE DAILY TRAFFIC

ID	INTERSECTION	LEG	MODEL 2016 ADT	EXISTING 2021 ADT	MODEL 2040 ADT	FUTURE 2040 ADT[1]	OPENING 2024 ADT	ADJUSTED BUILDOUT ADT[2]
1	California Avenue at:	North	10,598	13,900	16,538	18,200	14,600	18,200
	Barton Road	South	-	0	-	-	-	-
		East	17,747	29,800	26,334	36,600	30,900	36,600
		West	15,661	27,700	21,426	32,300	28,400	32,300
2	New Jersey Street at:	North	875	3,000	3,148	3,460	3,300	3,700
	Barton Road	South	-	200	-	220	200	200
		East	17,842	29,100	26,641	36,100	30,200	36,100
		West	17,747	29,700	26,334	36,500	30,800	36,500
3	New Jersey Street at:	North	-	100	-	110	100	100
	Bermudez Street	South	-	100	-	110	100	100
		East	-	100	-	110	100	100
		West	-	-	-	-	-	-
4	San Timoteo Canyon Road at:	North	-	0	-	-	-	-
	Barton Road	South	6,492	8,600	13,364	14,700	9,500	14,700
		East	12,844	27,900	16,570	30,800	28,400	30,800
		West	17,842	28,900	26,641	35,900	30,000	35,900
5	Nevada Street at:	North	6,492	9,800	13,364	14,700	10,700	14,700
	San Timoteo Canyon Road	South	-	1,000	34	1,100	1,000	1,900
		East	6,492	8,800	13,330	14,700	9,700	14,700
		West	-	0	-	-	-	-
6	Nevada Street at:	North	-	600	34	660	600	1,500
	Beamont Avenue	South	-	0	-	-	-	-
		East	848	2,800	1,855	3,600	2,900	3,600
		West	848	3,100	1,889	3,920	3,200	4,400
8	San Timoteo Canyon Road at:	North	6,492	9,700	13,364	14,700	10,600	14,700
	Project Street	South	6,492	9,800	13,364	14,700	10,700	14,700
		East	-	0	-	-	-	-
		West	-	100	-	110	100	100

California Street (NS) / Barton Road (EW) - #1

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2021

			255	0	396			
			<	v	>			
	211	^				^	387	
	640	>				<	888	
	0	v				v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2021

				651	598			
				v	^			
		1143	<	IN =	2777	<	1275	
		851	>	OUT =	2777	>	1036	
				v	^			
				0	0			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			14	0	76			
			<	v	>			
	14	^				^	44	
	47	>				<	44	
	0	v				v	0	
PCE FACTORS BY AXLE:			<	^	>			
2: 1.5 3: 2.0 4+: 3.0			0	0	0			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2021

			269	0	472			
			<	v	>			
	225	^				^	431	
	687	>				<	932	
	0	v				v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				808	1384			
				v	^			
		2441	<	IN =	4871	<	2940	
		1123	>	OUT =	4869	>	1044	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				10	19			
				v	^			
		22	<	IN =	55	<	35	
		10	>	OUT =	55	>	14	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

				310	532			
				v	^			
		935	<	IN =	1869	<	1129	
		430	>	OUT =	1869	>	401	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				1012	2076			
				v	^			
		2825	<	IN =	6558	<	3840	
		1706	>	OUT =	6556	>	1655	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				48	66			
				v	^			
		68	<	IN =	195	<	103	
		44	>	OUT =	195	>	61	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

				401	811			
				v	^			
		1096	<	IN =	2557	<	1493	
		663	>	OUT =	2556	>	649	
				v	^			
				0	0			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2021

			172	0	339			
			<	v	>			
	342	^				^	308	
	1196	>				<	665	
	0	v				v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2021

				511	650			
				v	^			
		837	<	IN =	3022	<	973	
		1538	>	OUT =	3022	>	1535	
				v	^			
				0	0			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			3	0	12			
			<	v	>			
	0	^				^	33	
	21	>				<	13	
	0	v				v	0	
PCE FACTORS BY AXLE:			<	^	>			
2: 1.5 3: 2 4+: 3.0			0	0	0			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2021

			175	0	351			
			<	v	>			
	342	^				^	341	
	1217	>				<	678	
	0	v				v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				1809	1945			
				v	^			
		1896	<	IN =	7496	<	2307	
		3380	>	OUT =	7496	>	3655	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				12	21			
				v	^			
		13	<	IN =	60	<	27	
		21	>	OUT =	60	>	26	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

				510	550			
				v	^			
		534	<	IN =	2114	<	653	
		952	>	OUT =	2114	>	1030	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				2600	2283			
				v	^			
		3020	<	IN =	9792	<	3575	
		3617	>	OUT =	9792	>	4489	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				58	68			
				v	^			
		63	<	IN =	225	<	100	
		67	>	OUT =	226	>	95	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

				743	656			
				v	^			
		861	<	IN =	2798	<	1026	
		1030	>	OUT =	2798	>	1281	
				v	^			
				0	0			

California Street (NS) / Barton Road (EW) - #1

MORNING PEAK HOUR	EVENING PEAK HOUR
RAW GROWTH (PCEs): 2016 TO 2040	RAW GROWTH (PCEs): 2016 TO 2040
CONVERSION OF TRUCKS TO: 2040	CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00	FACTOR = 1.00
90 v 279 ^	233 v 106 ^
161 < < 365	327 < < 373
233 > > 248	78 > > 251
v ^	v ^
0 0	0 0
ADJUSTED GROWTH (PCEs): 2016 TO 2040	ADJUSTED GROWTH (PCEs): 2016 TO 2040
10.00 MINIMUM GROWTH %	10 MINIMUM GROWTH %
90 v 280 ^	230 v 110 ^
160 < IN = 680 < 360	330 < IN = 760 < 370
230 > OUT = 690 > 250	160 > OUT = 690 > 250
v ^	v ^
0 0	0 0
PRORATED GROWTH (PCEs): 2021 TO 2040	PRORATED GROWTH (PCEs): 2021 TO 2040
19 YEARS	19 YEARS
70 v 220 ^	180 v 90 ^
130 < < 290	260 < < 290
180 > > 200	130 > > 200
v ^	v ^
0 0	0 0
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
810 v 880 ^	710 v 770 ^
1330 < < 1650	1110 < < 1310
1090 > > 1360	1690 > > 1770
v ^	v ^
0 0	0 0
YEAR 2024 GROWTH: 2021 TO 2024	YEAR 2024 GROWTH: 2021 TO 2024
3 YEARS	3 YEARS
10 v 40 ^	30 v 10 ^
20 < < 50	40 < < 50
30 > > 30	20 > > 30
v ^	v ^
0 0	0 0
INITIAL YEAR 2024 VOLUMES:	INITIAL YEAR 2024 VOLUMES:
2024	2024
750 v 700 ^	560 v 690 ^
1220 < IN = 3100 < 1410	890 < IN = 3210 < 1070
940 > OUT = 3110 > 1190	1580 > OUT = 3180 > 1600
v ^	v ^
0 0	0 0
BALANCED YEAR 2024 VOLUMES:	BALANCED YEAR 2024 VOLUMES:
2024	2024
750 v 700 ^	560 v 700 ^
1220 < IN = 3100 < 1410	900 < IN = 3210 < 1070
940 > OUT = 3110 > 1190	1580 > OUT = 3220 > 1620
v ^	v ^
0 0	0 0
ADT BY LEG:	ADT BY LEG:
2040	2040
18,200 N	18,200 N
32,300 W LEG E 36,600	32,300 W LEG E 36,600
S 0	S 0
ADT BY LEG:	ADT BY LEG:
2024	2024
14,600 N	14,600 N
28,400 W LEG E 30,900	28,400 W LEG E 30,900
S 0	S 0

New Jersey St (NS) / Barton Road (EW) - #2

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2021

			85	0	50			
			<	v	>			
	55	^				^	59	
	947	>				<	1210	
	3	v				v	3	
			<	^	>			
			1	0	3			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2021

				135	114			
				v	^			
	1296	<	IN =	2416		<	1272	
	1005	>	OUT =	2416		>	1000	
				v	^			
				6	4			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			2	4	10			
			<	v	>			
	5	^				^	12	
	129	>				<	79	
	3	v				v	0	
			<	^	>			

PCE FACTORS BY AXLE:

2: 1.5 3: 2.0 4+: 3.0

			2	0	0			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2021

			87	4	60			
			<	v	>			
	60	^				^	71	
	1076	>				<	1289	
	6	v				v	3	
			<	^	>			
			3	0	3			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				68	99			
				v	^			
	2940	<	IN =	4082		<	2970	
	1044	>	OUT =	4082		>	1043	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				5	3			
				v	^			
	35	<	IN =	53		<	34	
	14	>	OUT =	53		>	15	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				28	39			
				v	^			
	1129	<	IN =	1569		<	1140	
	401	>	OUT =	1569		>	401	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				247	376			
				v	^			
	3840	<	IN =	5872		<	3970	
	1655	>	OUT =	5871		>	1655	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				11	10			
				v	^			
	103	<	IN =	175		<	103	
	61	>	OUT =	175		>	62	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				98	146			
				v	^			
	1493	<	IN =	2290		<	1543	
	649	>	OUT =	2289		>	650	
				v	^			
				0	0			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2021

			80	0	72			
			<	v	>			
	67	^				^	27	
	1421	>				<	878	
	4	v				v	5	
			<	^	>			
			3	0	1			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2021

				152	94			
				v	^			
	961	<	IN =	2558		<	910	
	1492	>	OUT =	2558		>	1494	
				v	^			
				9	4			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			3	0	5			
			<	v	>			
	5	^				^	0	
	60	>				<	58	
	0	v				v	0	
			<	^	>			

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

			0	0	2			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2021

			83	0	77			
			<	v	>			
	72	^				^	27	
	1481	>				<	936	
	4	v				v	5	
			<	^	>			
			3	0	3			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				146	124			
				v	^			
	2307	<	IN =	6108		<	2307	
	3655	>	OUT =	6107		>	3676	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				3	5			
				v	^			
	27	<	IN =	57		<	28	
	26	>	OUT =	57		>	25	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				42	36			
				v	^			
	653	<	IN =	1724		<	653	
	1030	>	OUT =	1724		>	1036	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				518	423			
				v	^			
	3575	<	IN =	8564		<	3557	
	4489	>	OUT =	8564		>	4566	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				13	13			
				v	^			
	100	<	IN =	206		<	98	
	95	>	OUT =	206		>	93	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				148	122			
				v	^			
	1026	<	IN =	2449		<	1020	
	1281	>	OUT =	2449		>	1302	
				v	^			
				0	0			

New Jersey St (NS) / Barton Road (EW) - #2

MORNING PEAK HOUR	EVENING PEAK HOUR
RAW GROWTH (PCEs): 2016 TO 2040	RAW GROWTH (PCEs): 2016 TO 2040
CONVERSION OF TRUCKS TO: 2040	CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00	FACTOR = 1.00
70 v 108 ^	107 v 86 ^
365 < < 403	373 < < 368
248 > > 248	251 > > 266
v ^	v ^
0 0	0 0
ADJUSTED GROWTH (PCEs): 2016 TO 2040	ADJUSTED GROWTH (PCEs): 2016 TO 2040
10.00 MINIMUM GROWTH %	10 MINIMUM GROWTH %
70 v 110 ^	110 v 90 ^
360 < IN = 720 < 400	370 < IN = 730 < 370
250 > OUT = 720 > 250	250 > OUT = 730 > 270
v ^	v ^
0 0	0 0
PRORATED GROWTH (PCEs): 2021 TO 2040	PRORATED GROWTH (PCEs): 2021 TO 2040
19 YEARS	19 YEARS
60 v 90 ^	90 v 70 ^
290 < < 320	290 < < 290
200 > > 200	200 > > 210
v ^	v ^
0 0	0 0
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
210 v 220 ^	250 v 170 ^
1670 < < 1680	1310 < < 1260
1340 > > 1340	1760 > > 1770
v ^	v ^
10 10	10 10
YEAR 2024 GROWTH: 2021 TO 2024	YEAR 2024 GROWTH: 2021 TO 2024
3 YEARS	3 YEARS
10 v 10 ^	10 v 10 ^
50 < < 50	50 < < 50
30 > > 30	30 > > 30
v ^	v ^
0 0	0 0
INITIAL YEAR 2024 VOLUMES:	INITIAL YEAR 2024 VOLUMES:
2024	2024
160 v 140 ^	170 v 110 ^
1430 < IN = 2750 < 1410	1070 < IN = 2790 < 1020
1170 > OUT = 2750 > 1170	1590 > OUT = 2780 > 1590
v ^	v ^
10 10	10 10
BALANCED YEAR 2024 VOLUMES:	BALANCED YEAR 2024 VOLUMES:
2024	2024
160 v 140 ^	170 v 110 ^
1430 < IN = 2750 < 1410	1070 < IN = 2790 < 1020
1170 > OUT = 2750 > 1170	1590 > OUT = 2790 > 1600
v ^	v ^
10 10	10 10
ADT BY LEG:	ADT BY LEG:
2040	2040
0 N	0 N
0 W LEG E 0	0 W LEG E 0
S	S
0	0
ADT BY LEG:	ADT BY LEG:
2024	2024
0 N	0 N
0 W LEG E 0	0 W LEG E 0
S	S
0	0

New Jersey Street (NS) / Bermudez Street (EW) - #3

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2021

			0	2	3			
			<	v	>			
0	^					^	1	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	2	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2021

				5	3			
				v	^			
		0	<	IN =	8	<	1	
		0	>	OUT =	8	>	3	
				v	^			
				2	2			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	5	2			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	2	0			

PCE FACTORS BY AXLE:

2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2021

			0	7	5			
			<	v	>			
0	^					^	1	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	4	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2021

			0	3	3			
			<	v	>			
0	^					^	2	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	4	2			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2021

				6	6			
				v	^			
		0	<	IN =	14	<	2	
		0	>	OUT =	14	>	5	
				v	^			
				3	6			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	0	0			

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2021

			0	3	3			
			<	v	>			
0	^					^	2	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	4	2			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

New Jersey Street (NS) / Bermudez Street (EW) - #3

MORNING PEAK HOUR										EVENING PEAK HOUR									
RAW GROWTH (PCEs):	2016	TO	2040							RAW GROWTH (PCEs):	2016	TO	2040						
CONVERSION OF TRUCKS TO:			2040				0	0		CONVERSION OF TRUCKS TO:			2040				0	0	
FACTOR =	1.00						v	^		FACTOR =	1.00						v	^	
					0	<			< 0						0	<			< 0
					0	>			> 0						0	>			> 0
							v	^									v	^	
							0	0									0	0	
ADJUSTED GROWTH (PCEs):			2016	TO	2040					ADJUSTED GROWTH (PCEs):			2016	TO	2040				
10.00 MINIMUM GROWTH %							0	0		10 MINIMUM GROWTH %							0	0	
							v	^									v	^	
					0	<	IN =	0	< 0						0	<	IN =	0	< 0
					0	>	OUT =	0	> 0						0	>	OUT =	0	> 0
							v	^									v	^	
							0	0									0	0	
PRORATED GROWTH (PCEs):			2021	TO	2040					PRORATED GROWTH (PCEs):			2021	TO	2040				
19 YEARS							0	0		19 YEARS							0	0	
							v	^									v	^	
					0	<			< 0						0	<			< 0
					0	>			> 0						0	>			> 0
							v	^									v	^	
							0	0									0	0	
NEW PROJECTED VOLUMES (PCEs):			2040							NEW PROJECTED VOLUMES (PCEs):			2040						
							10	10									10	10	
							v	^									v	^	
					0	<			< 0						0	<			< 0
					0	>			> 10						0	>			> 10
							v	^									v	^	
							10	0									0	10	
YEAR 2024 GROWTH:			2021	TO	2024					YEAR 2024 GROWTH:			2021	TO	2024				
3 YEARS							0	0		3 YEARS							0	0	
							v	^									v	^	
					0	<			< 0						0	<			< 0
					0	>			> 0						0	>			> 0
							v	^									v	^	
							0	0									0	0	
INITIAL YEAR 2024 VOLUMES:										INITIAL YEAR 2024 VOLUMES:									
2024							10	10		2024							10	10	
							v	^									v	^	
					0	<	IN =	10	< 0						0	<	IN =	20	< 0
					0	>	OUT =	30	> 10						0	>	OUT =	20	> 10
							v	^									v	^	
							10	0									0	10	
BALANCED YEAR 2024 VOLUMES:										BALANCED YEAR 2024 VOLUMES:									
2024							30	10		2024							10	10	
							v	^									v	^	
					0	<	IN =	30	< 0						0	<	IN =	20	< 0
					0	>	OUT =	30	> 10						0	>	OUT =	20	> 10
							v	^									v	^	
							10	0									0	10	
ADT BY LEG:										ADT BY LEG:									
2040							0			2040							0		
							N										N		
					0	W	LEG	E	0						0	W	LEG	E	0
							S										S		
							0										0		
ADT BY LEG:										ADT BY LEG:									
2024							0			2024							0		
							N										N		
					0	W	LEG	E	0						0	W	LEG	E	0
							S										S		
							0										0		

San Timoteo Canyon (NS) / Barton Road (EW) - #4

MORNING PEAK HOUR	EVENING PEAK HOUR
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2021	2021
0 0 0	0 0 0
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
868 > < 1077	1272 > < 781
131 v v 80	213 v v 184
< ^ >	< ^ >
190 0 137	142 0 119
EXISTING PEAK HOUR COUNT YEAR (AUTOS):	EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2021	2021
0 0	0 0
v ^	v ^
1267 < IN = 2483 < 1157	923 < IN = 2711 < 965
999 > OUT = 2483 > 1005	1485 > OUT = 2711 > 1391
v ^	v ^
211 327	397 261
EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):	EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):
0 0 0	0 0 0
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
72 > < 57	37 > < 10
67 v v 31	25 v v 9
PCE FACTORS BY AXLE: < ^ >	PCE FACTORS BY AXLE: < ^ >
2: 1.5 3: 2.0 4+: 3.0 34 0 12	2: 1.5 3: 2 4+: 3.0 37 0 18
TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):	TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):
2021	2021
0 0 0	0 0 0
< v >	< v >
0 ^ ^ 0	0 ^ ^ 0
940 > < 1134	1309 > < 791
198 v v 111	238 v v 193
< ^ >	< ^ >
224 0 149	179 0 137
EXISTING PEAK PERIOD MODEL YEAR (AUTO):	EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2016	2016
0 0	0 0
v ^	v ^
2970 < IN = 4152 < 2032	2307 < IN = 6204 < 1845
1043 > OUT = 4153 > 836	3676 > OUT = 6205 > 2622
v ^	v ^
347 1077	1276 683
EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2016	2016
0 0	0 0
v ^	v ^
34 < IN = 51 < 28	28 < IN = 54 < 20
15 > OUT = 51 > 10	25 > OUT = 55 > 20
v ^	v ^
7 8	7 9
EXISTING PEAK HOUR MODEL YEAR (PCEs):	EXISTING PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38	PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.333	PHF FOR TRUCKS: 0.25
0 0	0 0
v ^	v ^
1140 < IN = 1595 < 781	653 < IN = 1751 < 522
401 > OUT = 1595 > 321	1036 > OUT = 1751 > 739
v ^	v ^
134 412	359 193
FUTURE PEAK PERIOD MODEL YEAR (AUTO):	FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2040	2040
0 0	0 0
v ^	v ^
3970 < IN = 5905 < 2637	3557 < IN = 8571 < 2311
1655 > OUT = 5906 > 940	4566 > OUT = 8571 > 2991
v ^	v ^
996 1613	2023 1694
FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):	FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):
2040	2040
0 0	0 0
v ^	v ^
103 < IN = 171 < 55	98 < IN = 197 < 50
62 > OUT = 171 > 27	93 > OUT = 197 > 50
v ^	v ^
41 54	49 54
FUTURE PEAK HOUR MODEL YEAR (PCEs):	FUTURE PEAK HOUR MODEL YEAR (PCEs):
PHF FOR CARS: 0.38	PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.333	PHF FOR TRUCKS: 0.25
0 0	0 0
v ^	v ^
1543 < IN = 2301 < 1020	1020 < IN = 2449 < 660
650 > OUT = 2301 > 366	1302 > OUT = 2449 > 850
v ^	v ^
392 631	579 488

San Timoteo Canyon (NS) / Barton Road (EW) - #4

MORNING PEAK HOUR											EVENING PEAK HOUR										
RAW GROWTH (PCEs):	2016	TO	2040								RAW GROWTH (PCEs):	2016	TO	2040							
CONVERSION OF TRUCKS TO:		2040				0	0				CONVERSION OF TRUCKS TO:		2040				0	0		
FACTOR =	1.00					v	^				FACTOR =	1.00					v	^		
				403	<			<	239						368	<			<	138
				248	>			>	45						266	>			>	111
						v	^										v	^		
						258	219										220	294		
ADJUSTED GROWTH (PCEs):		2016	TO	2040							ADJUSTED GROWTH (PCEs):		2016	TO	2040						
10.00 MINIMUM GROWTH %						0	0				10 MINIMUM GROWTH %						0	0		
						v	^										v	^		
				400	<	IN =	710	<	240						370	<	IN =	700	<	140
				250	>	OUT =	770	>	110						270	>	OUT =	730	>	140
						v	^										v	^		
						260	220										220	290		
PRORATED GROWTH (PCEs):		2021	TO	2040							PRORATED GROWTH (PCEs):		2021	TO	2040						
19 YEARS						0	0				19 YEARS						0	0		
						v	^										v	^		
				320	<			<	190						290	<			<	110
				200	>			>	90						210	>			>	110
						v	^										v	^		
						210	170										170	230		
NEW PROJECTED VOLUMES (PCEs):		2040									NEW PROJECTED VOLUMES (PCEs):		2040								
						0	0										0	0		
						v	^										v	^		
				1680	<			<	1440						1260	<			<	1090
				1340	>			>	1180						1760	>			>	1560
						v	^										v	^		
						520	540										600	550		
YEAR 2024 GROWTH:		2021	TO	2024							YEAR 2024 GROWTH:		2021	TO	2024						
3 YEARS						0	0				3 YEARS						0	0		
						v	^										v	^		
				50	<			<	30						50	<			<	20
				30	>			>	10						30	>			>	20
						v	^										v	^		
						30	30										30	40		
INITIAL YEAR 2024 VOLUMES:											INITIAL YEAR 2024 VOLUMES:										
2024						0	0				2024						0	0		
						v	^										v	^		
				1410	<	IN =	2850	<	1280						1020	<	IN =	2940	<	1000
				1170	>	OUT =	2850	>	1100						1580	>	OUT =	2950	>	1470
						v	^										v	^		
						340	400										460	360		
BALANCED YEAR 2024 VOLUMES:											BALANCED YEAR 2024 VOLUMES:										
2024						0	0				2024						0	0		
						v	^										v	^		
				1410	<	IN =	2850	<	1280						1020	<	IN =	2950	<	1000
				1170	>	OUT =	2850	>	1100						1590	>	OUT =	2950	>	1470
						v	^										v	^		
						340	400										460	360		
ADT BY LEG:											ADT BY LEG:										
2040						0					2040						0				
						N											N				
				35,900	W	LEG	E		30,800						35,900	W	LEG	E		30,800
						S											S				
						14,700											14,700				
ADT BY LEG:											ADT BY LEG:										
2024						0					2024						0				
						N											N				
				30,000	W	LEG	E		28,400						30,000	W	LEG	E		28,400
						S											S				
						9,500											9,500				

Nevada Street (NS) / San Timoteo Canyon (EW) - #5

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2021

			0	27	261			
			<	v	>			
0	^					^	325	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	27	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2021

				288	352			
				v	^			
		0	<	IN =	640	<	325	
		0	>	OUT =	640	>	261	
				v	^			
				27	27			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	8	83			
			<	v	>			
0	^					^	35	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	3	0			

PCE FACTORS BY AXLE:

2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2021

			0	35	344			
			<	v	>			
0	^					^	360	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	30	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				347	1077			
				v	^			
		0	<	IN =	1424	<	1077	
		0	>	OUT =	1424	>	347	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				7	8			
				v	^			
		0	<	IN =	15	<	8	
		0	>	OUT =	15	>	7	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				134	412			
				v	^			
		0	<	IN =	546	<	412	
		0	>	OUT =	546	>	134	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				996	1613			
				v	^			
		0	<	IN =	2609	<	1613	
		0	>	OUT =	2608	>	963	
				v	^			
				32	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				41	54			
				v	^			
		0	<	IN =	95	<	54	
		0	>	OUT =	95	>	39	
				v	^			
				2	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				392	631			
				v	^			
		0	<	IN =	1023	<	631	
		0	>	OUT =	1023	>	379	
				v	^			
				13	0			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2021

			0	57	392			
			<	v	>			
0	^					^	213	
0	>					<	0	
0	v					v	1	
			<	^	>			
			0	22	4			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2021

				449	235			
				v	^			
		0	<	IN =	689	<	214	
		0	>	OUT =	689	>	396	
				v	^			
				58	26			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	2	72			
			<	v	>			
0	^					^	87	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	5	0			

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2021

			0	59	464			
			<	v	>			
0	^					^	300	
0	>					<	0	
0	v					v	1	
			<	^	>			
			0	27	4			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				1276	683			
				v	^			
		0	<	IN =	1959	<	683	
		0	>	OUT =	1959	>	1276	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				7	9			
				v	^			
		0	<	IN =	16	<	9	
		0	>	OUT =	16	>	7	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				359	193			
				v	^			
		0	<	IN =	553	<	193	
		0	>	OUT =	553	>	359	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				2023	1694			
				v	^			
		0	<	IN =	3717	<	1694	
		0	>	OUT =	3717	>	2023	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				49	54			
				v	^			
		0	<	IN =	103	<	54	
		0	>	OUT =	103	>	49	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				579	488			
				v	^			
		0	<	IN =	1067	<	488	
		0	>	OUT =	1067	>	579	
				v	^			
				0	0			

Nevada Street (NS) / San Timoteo Canyon (EW) - #5

MORNING PEAK HOUR	EVENING PEAK HOUR
RAW GROWTH (PCEs): 2016 TO 2040	RAW GROWTH (PCEs): 2016 TO 2040
CONVERSION OF TRUCKS TO: 2040	CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00	FACTOR = 1.00
258 v 219 ^	220 v 294 ^
0 < < 219	0 < < 294
0 > > 245	0 > > 220
v ^	v ^
13 0	0 0
ADJUSTED GROWTH (PCEs): 2016 TO 2040	ADJUSTED GROWTH (PCEs): 2016 TO 2040
10.00 MINIMUM GROWTH %	10 MINIMUM GROWTH %
260 v 220 ^	220 v 290 ^
0 < IN = 480 < 220	0 < IN = 510 < 290
0 > OUT = 470 > 240	0 > OUT = 510 > 220
v ^	v ^
10 0	0 0
PRORATED GROWTH (PCEs): 2021 TO 2040	PRORATED GROWTH (PCEs): 2021 TO 2040
19 YEARS	19 YEARS
210 v 170 ^	170 v 230 ^
0 < < 170	0 < < 230
0 > > 190	0 > > 170
v ^	v ^
10 0	0 0
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
590 v 560 ^	690 v 560 ^
0 < < 530	0 < < 530
0 > > 530	0 > > 640
v ^	v ^
50 30	60 30
YEAR 2024 GROWTH: 2021 TO 2024	YEAR 2024 GROWTH: 2021 TO 2024
3 YEARS	3 YEARS
30 v 30 ^	30 v 40 ^
0 < < 30	0 < < 40
0 > > 30	0 > > 30
v ^	v ^
0 0	0 0
INITIAL YEAR 2024 VOLUMES:	INITIAL YEAR 2024 VOLUMES:
2024	2024
410 v 420 ^	550 v 370 ^
0 < IN = 830 < 390	0 < IN = 920 < 340
0 > OUT = 830 > 370	0 > OUT = 930 > 500
v ^	v ^
40 30	60 30
BALANCED YEAR 2024 VOLUMES:	BALANCED YEAR 2024 VOLUMES:
2024	2024
410 v 420 ^	560 v 370 ^
0 < IN = 830 < 390	0 < IN = 930 < 340
0 > OUT = 830 > 370	0 > OUT = 930 > 500
v ^	v ^
40 30	60 30
ADT BY LEG:	ADT BY LEG:
2040	2040
0 N 0	0 N 0
0 W LEG E 0	0 W LEG E 0
S 0	S 0
ADT BY LEG:	ADT BY LEG:
2024	2024
0 N 0	0 N 0
0 W LEG E 0	0 W LEG E 0
S 0	S 0

Nevada Street (NS) / Beaumont Ave (EW) - #6

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2021

			18	1	13			
			<	v	>			
	23	^				^	3	
	119	>				<	190	
	0	v				v	1	
			<	^	>			
			0	1	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2021

				32	27			
				v	^			
	208	<	IN =	369		<	194	
	142	>	OUT =	369		>	132	
				v	^			
				2	1			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			2	0	5			
			<	v	>			
	6	^				^	3	
	0	>				<	5	
	0	v				v	0	

PCE FACTORS BY AXLE:

2: 1.5 3: 2.0 4+: 3.0

			<	^	>			
			0	0	0			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2021

			20	1	18			
			<	v	>			
	29	^				^	6	
	119	>				<	195	
	0	v				v	1	
			<	^	>			
			0	1	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				0	0			
				v	^			
	95	<	IN =	197		<	95	
	102	>	OUT =	197		>	102	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				0	0			
				v	^			
	2	<	IN =	3		<	2	
	1	>	OUT =	3		>	1	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				0	0			
				v	^			
	37	<	IN =	76		<	37	
	39	>	OUT =	76		>	39	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				32	0			
				v	^			
	347	<	IN =	470		<	315	
	123	>	OUT =	470		>	123	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				2	0			
				v	^			
	8	<	IN =	11		<	7	
	2	>	OUT =	10		>	2	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				13	0			
				v	^			
	135	<	IN =	182		<	122	
	47	>	OUT =	182		>	47	
				v	^			
				0	0			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2021

			21	0	9			
			<	v	>			
	16	^				^	4	
	143	>				<	72	
	0	v				v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2021

				30	20			
				v	^			
	93	<	IN =	265		<	76	
	159	>	OUT =	265		>	152	
				v	^			
				0	0			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	2			
			<	v	>			
	0	^				^	2	
	12	>				<	2	
	0	v				v	0	

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

			<	^	>			
			0	0	0			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2021

			21	0	11			
			<	v	>			
	16	^				^	6	
	155	>				<	74	
	0	v				v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				0	0			
				v	^			
	133	<	IN =	287		<	133	
	154	>	OUT =	287		>	154	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				0	0			
				v	^			
	1	<	IN =	3		<	1	
	2	>	OUT =	3		>	2	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				0	0			
				v	^			
	37	<	IN =	81		<	37	
	44	>	OUT =	81		>	44	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				0	0			
				v	^			
	254	<	IN =	597		<	254	
	343	>	OUT =	597		>	343	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				0	0			
				v	^			
	5	<	IN =	11		<	5	
	6	>	OUT =	11		>	6	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				0	0			
				v	^			
	72	<	IN =	170		<	72	
	98	>	OUT =	170		>	98	
				v	^			
				0	0			

Nevada Street (NS) / Beaumont Ave (EW) - #6

MORNING PEAK HOUR	EVENING PEAK HOUR
RAW GROWTH (PCEs): 2016 TO 2040	RAW GROWTH (PCEs): 2016 TO 2040
CONVERSION OF TRUCKS TO: 2040	CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00	FACTOR = 1.00
13 0	0 0
v ^	v ^
98 < < 85	35 < < 35
8 > > 8	54 > > 54
v ^	v ^
0 0	0 0
ADJUSTED GROWTH (PCEs): 2016 TO 2040	ADJUSTED GROWTH (PCEs): 2016 TO 2040
10.00 MINIMUM GROWTH %	10 MINIMUM GROWTH %
10 0	0 0
v ^	v ^
100 < IN = 110 < 90	30 < IN = 80 < 30
10 > OUT = 110 > 10	50 > OUT = 80 > 50
v ^	v ^
0 0	0 0
PRORATED GROWTH (PCEs): 2021 TO 2040	PRORATED GROWTH (PCEs): 2021 TO 2040
19 YEARS	19 YEARS
10 0	0 0
v ^	v ^
80 < < 70	20 < < 20
10 > > 10	40 > > 40
v ^	v ^
0 0	0 0
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
50 40	30 20
v ^	v ^
300 < < 270	120 < < 100
160 > > 150	210 > > 210
v ^	v ^
0 0	0 0
YEAR 2024 GROWTH: 2021 TO 2024	YEAR 2024 GROWTH: 2021 TO 2024
3 YEARS	3 YEARS
0 0	0 0
v ^	v ^
10 < < 10	0 < < 0
0 > > 0	10 > > 10
v ^	v ^
0 0	0 0
INITIAL YEAR 2024 VOLUMES:	INITIAL YEAR 2024 VOLUMES:
2024	2024
40 40	30 20
v ^	v ^
230 < IN = 400 < 210	100 < IN = 290 < 80
150 > OUT = 410 > 140	180 > OUT = 300 > 180
v ^	v ^
0 0	0 0
BALANCED YEAR 2024 VOLUMES:	BALANCED YEAR 2024 VOLUMES:
2024	2024
40 40	30 20
v ^	v ^
230 < IN = 410 < 220	100 < IN = 300 < 80
150 > OUT = 410 > 140	190 > OUT = 300 > 180
v ^	v ^
0 0	0 0
ADT BY LEG:	ADT BY LEG:
2040	2040
600	600
N	N
3,900 W LEG E 3,600	3,900 W LEG E 3,600
S	S
0	0
ADT BY LEG:	ADT BY LEG:
2024	2024
600	600
N	N
3,200 W LEG E 2,900	3,200 W LEG E 2,900
S	S
0	0

San Timoteo Canyon (NS) / Bermudez Street (EW) - #8

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2021

			0	286	0			
			<	v	>			
	0	^				^	0	
	0	>				<	0	
	2	v				v	0	
			<	^	>			
			0	352	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2021

				286	352			
				v	^			
			0	< IN =	640	<	0	
			2	> OUT =	640	>	0	
				v	^			
				288	352			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	89	0			
			<	v	>			
	0	^				^	0	
	0	>				<	0	
	2	v				v	0	
			<	^	>			
			0	38	0			

PCE FACTORS BY AXLE:

2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2021

			0	375	0			
			<	v	>			
	0	^				^	0	
	0	>				<	0	
	4	v				v	0	
			<	^	>			
			0	390	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				347	1077			
				v	^			
			0	< IN =	1424	<	0	
			0	> OUT =	1424	>	0	
				v	^			
				347	1077			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				7	8			
				v	^			
			0	< IN =	15	<	0	
			0	> OUT =	15	>	0	
				v	^			
				7	8			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				134	412			
				v	^			
			0	< IN =	546	<	0	
			0	> OUT =	546	>	0	
				v	^			
				134	412			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				996	1613			
				v	^			
			0	< IN =	2609	<	0	
			0	> OUT =	2609	>	0	
				v	^			
				996	1613			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				41	54			
				v	^			
			0	< IN =	95	<	0	
			0	> OUT =	95	>	0	
				v	^			
				41	54			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				392	631			
				v	^			
			0	< IN =	1023	<	0	
			0	> OUT =	1023	>	0	
				v	^			
				392	631			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2021

			1	446	0			
			<	v	>			
	0	^				^	0	
	0	>				<	0	
	4	v				v	0	
			<	^	>			
			0	235	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2021

				447	235			
				v	^			
			1	< IN =	686	<	0	
			4	> OUT =	686	>	0	
				v	^			
				450	235			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	74	0			
			<	v	>			
	0	^				^	0	
	0	>				<	0	
	0	v				v	0	
			<	^	>			
			0	91	0			

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2021

			1	520	0			
			<	v	>			
	0	^				^	0	
	0	>				<	0	
	4	v				v	0	
			<	^	>			
			0	326	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				1276	683			
				v	^			
			0	< IN =	1959	<	0	
			0	> OUT =	1959	>	0	
				v	^			
				1276	683			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				7	9			
				v	^			
			0	< IN =	16	<	0	
			0	> OUT =	16	>	0	
				v	^			
				7	9			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				359	193			
				v	^			
			0	< IN =	553	<	0	
			0	> OUT =	553	>	0	
				v	^			
				359	193			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				2023	1694			
				v	^			
			0	< IN =	3717	<	0	
			0	> OUT =	3717	>	0	
				v	^			
				2023	1694			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				49	54			
				v	^			
			0	< IN =	103	<	0	
			0	> OUT =	103	>	0	
				v	^			
				49	54			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				579	488			
				v	^			
			0	< IN =	1067	<	0	
			0	> OUT =	1067	>	0	
				v	^			
				579	488			

San Timoteo Canyon (NS) / Bermudez Street (EW) - #8

MORNING PEAK HOUR	EVENING PEAK HOUR
RAW GROWTH (PCEs): 2016 TO 2040	RAW GROWTH (PCEs): 2016 TO 2040
CONVERSION OF TRUCKS TO: 2040	CONVERSION OF TRUCKS TO: 2040
FACTOR = 1.00	FACTOR = 1.00
258 219	220 294
v ^	v ^
0 < < 0	0 < < 0
0 > > 0	0 > > 0
v ^	v ^
258 219	220 294
ADJUSTED GROWTH (PCEs): 2016 TO 2040	ADJUSTED GROWTH (PCEs): 2016 TO 2040
10.00 MINIMUM GROWTH %	10 MINIMUM GROWTH %
260 220	220 290
v ^	v ^
0 < IN = 480 < 0	0 < IN = 510 < 0
0 > OUT = 480 > 0	0 > OUT = 510 > 0
v ^	v ^
260 220	220 290
PRORATED GROWTH (PCEs): 2021 TO 2040	PRORATED GROWTH (PCEs): 2021 TO 2040
19 YEARS	19 YEARS
210 170	170 230
v ^	v ^
0 < < 0	0 < < 0
0 > > 0	0 > > 0
v ^	v ^
210 170	170 230
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
590 560	690 560
v ^	v ^
0 < < 0	0 < < 0
0 > > 0	0 > > 0
v ^	v ^
590 560	690 560
YEAR 2024 GROWTH: 2021 TO 2024	YEAR 2024 GROWTH: 2021 TO 2024
3 YEARS	3 YEARS
30 30	30 40
v ^	v ^
0 < < 0	0 < < 0
0 > > 0	0 > > 0
v ^	v ^
30 30	30 40
INITIAL YEAR 2024 VOLUMES:	INITIAL YEAR 2024 VOLUMES:
2024	2024
410 420	550 370
v ^	v ^
0 < IN = 830 < 0	0 < IN = 920 < 0
0 > OUT = 830 > 0	0 > OUT = 920 > 0
v ^	v ^
410 420	550 370
BALANCED YEAR 2024 VOLUMES:	BALANCED YEAR 2024 VOLUMES:
2024	2024
410 420	550 370
v ^	v ^
0 < IN = 830 < 0	0 < IN = 920 < 0
0 > OUT = 830 > 0	0 > OUT = 920 > 0
v ^	v ^
410 420	550 370
ADT BY LEG:	ADT BY LEG:
2040	2040
14,700	14,700
N	N
0 W LEG E 0	0 W LEG E 0
S	S
14,700	14,700
ADT BY LEG:	ADT BY LEG:
2024	2024
900	900
N	N
0 W LEG E 0	0 W LEG E 0
S	S
900	900

APPENDIX G

INTERSECTION LEVEL OF SERVICE WORKSHEETS

EXISTING

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: California St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	28.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.648

Intersection Setup

Name	California St		Barton Rd		Barton Rd		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	0	0
Pocket Length [ft]	100.00	100.00	76.00	100.00	178.00	100.00	100.00
Speed [mph]	45.00		55.00		55.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		Yes		

Volumes

Name	California St		Barton Rd		Barton Rd		
Base Volume Input [veh/h]	472	269	225	687	0	932	431
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	472	269	225	687	0	932	431
Peak Hour Factor	0.8981	0.8981	0.8981	0.8981	1.0000	0.8981	0.8981
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	131	75	63	191	0	259	120
Total Analysis Volume [veh/h]	526	300	251	765	0	1038	480
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	3	8	0	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	35	0	31	95	0	64	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	20	0	0	38	0	27	0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	130	130	130	130	130	130	130
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	21	98	73	73	73
g / C, Green / Cycle	0.18	0.18	0.16	0.76	0.56	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.16	0.11	0.15	0.22	0.00	0.30	0.31
s, saturation flow rate [veh/h]	3329	2708	1714	3427	713	3427	1530
c, Capacity [veh/h]	606	493	278	2592	395	1931	862
d1, Uniform Delay [s]	51.59	48.85	53.42	4.97	0.00	17.76	18.04
k, delay calibration	0.11	0.11	0.13	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.93	1.21	11.92	0.29	0.00	1.08	2.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.61	0.90	0.30	0.00	0.54	0.56
d, Delay for Lane Group [s/veh]	55.52	50.07	65.34	5.26	0.00	18.84	20.64
Lane Group LOS	E	D	E	A	A	B	C
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	8.44	4.46	8.63	2.46	0.00	9.04	8.84
50th-Percentile Queue Length [ft/ln]	210.91	111.51	215.74	61.50	0.00	225.97	221.02
95th-Percentile Queue Length [veh/ln]	13.20	7.92	13.45	4.43	0.00	13.97	13.72
95th-Percentile Queue Length [ft/ln]	329.99	198.10	336.18	110.71	0.00	349.24	342.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	55.52	50.07	65.34	5.26	0.00	18.84	20.64
Movement LOS	E	D	E	A	A	B	C
d_A, Approach Delay [s/veh]	53.54		20.10		19.41		
Approach LOS	D		C		B		
d_I, Intersection Delay [s/veh]	28.01						
Intersection LOS	C						
Intersection V/C	0.648						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	54.47	0.00	54.47
l_p,int, Pedestrian LOS Score for Intersection	2.850	0.000	3.329
Crosswalk LOS	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	65.00	65.00	65.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.971	5.385
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: New Jersey St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	9.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.550

Intersection Setup

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	160.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Base Volume Input [veh/h]	3	0	3	60	4	87	60	1076	6	3	1289	71
Base Volume Adjustment Factor	1.0595	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0595	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	3	60	4	87	60	1076	6	3	1289	71
Peak Hour Factor	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	1	16	1	24	16	294	2	1	352	19
Total Analysis Volume [veh/h]	3	0	3	66	4	95	66	1175	7	3	1408	78
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	11	53	0	11	53	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	5	0	0	15	0	0	26	0	0	26	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	6	69	69	1	64	64
g / C, Green / Cycle	0.10	0.10	0.10	0.06	0.77	0.77	0.01	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.01	0.05	0.06	0.04	0.34	0.00	0.00	0.41	0.05
s, saturation flow rate [veh/h]	504	1436	1539	1714	3427	1530	1714	3427	1530
c, Capacity [veh/h]	108	81	146	108	2626	1172	10	2430	1085
d1, Uniform Delay [s]	37.21	39.84	39.43	41.10	3.74	2.47	44.56	6.46	4.01
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.21	17.64	5.47	5.50	0.55	0.01	16.20	1.01	0.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.82	0.68	0.61	0.45	0.01	0.30	0.58	0.07
d, Delay for Lane Group [s/veh]	37.43	57.48	44.90	46.60	4.29	2.48	60.77	7.48	4.14
Lane Group LOS	D	E	D	D	A	A	E	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.13	1.82	2.33	1.50	1.85	0.02	0.11	4.25	0.31
50th-Percentile Queue Length [ft/ln]	3.16	45.46	58.32	37.43	46.17	0.40	2.68	106.24	7.69
95th-Percentile Queue Length [veh/ln]	0.23	3.27	4.20	2.69	3.32	0.03	0.19	7.63	0.55
95th-Percentile Queue Length [ft/ln]	5.70	81.83	104.98	67.37	83.10	0.72	4.83	190.75	13.84

Movement, Approach, & Intersection Results

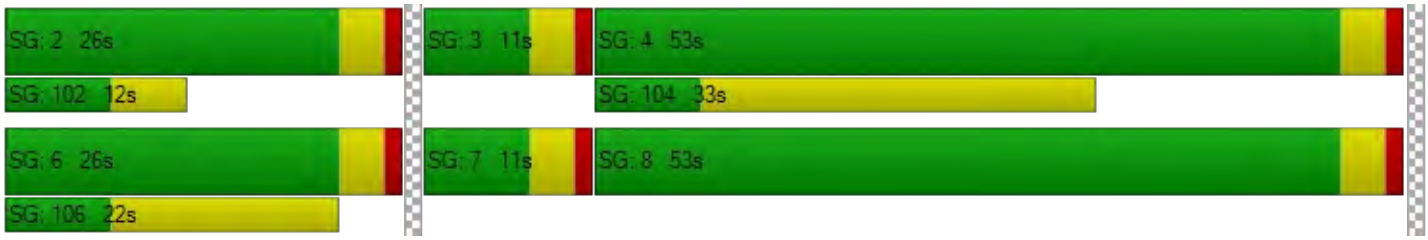
d_M, Delay for Movement [s/veh]	37.43	37.43	37.43	57.48	44.90	44.90	46.60	4.29	2.48	60.77	7.48	4.14
Movement LOS	D	D	D	E	D	D	D	A	A	E	A	A
d_A, Approach Delay [s/veh]	37.43			49.93			6.52			7.41		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	9.50											
Intersection LOS	A											
Intersection V/C	0.550											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.023	3.301	3.385
Crosswalk LOS	F	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	1089	1089
d_b, Bicycle Delay [s]	25.69	25.69	9.34	9.34
l_b,int, Bicycle LOS Score for Intersection	1.570	1.832	2.589	2.788
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: New Jersey St (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	New Jersey St		New Jersey St		Bermudez St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	New Jersey St		New Jersey St		Bermudez St	
Base Volume Input [veh/h]	4	0	5	7	0	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	0	5	7	0	1
Peak Hour Factor	0.6071	0.6071	0.6071	0.6071	0.6071	0.6071
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	2	3	0	0
Total Analysis Volume [veh/h]	7	0	8	12	0	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.22	0.00	8.69	8.34
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.23	0.23	0.14	0.14
d_A, Approach Delay [s/veh]	0.00		2.89		8.34	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.57					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: San Timoteo Canyon Rd (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	13.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.551

Intersection Setup

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	1	0
Pocket Length [ft]	155.00	100.00	100.00	100.00	200.00	100.00
Speed [mph]	45.00		55.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Base Volume Input [veh/h]	224	149	940	198	111	1134
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	224	149	940	198	111	1134
Peak Hour Factor	0.9174	0.9174	0.9174	0.9174	0.9174	0.9174
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	41	256	54	30	309
Total Analysis Volume [veh/h]	244	162	1025	216	121	1236
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	38	0	36	0	11	47
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	20	0	25	0	0	25
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	51	51	8	62
g / C, Green / Cycle	0.17	0.17	0.60	0.60	0.09	0.73
(v / s)_i Volume / Saturation Flow Rate	0.14	0.11	0.30	0.14	0.07	0.36
s, saturation flow rate [veh/h]	1714	1530	3427	1530	1714	3427
c, Capacity [veh/h]	296	264	2042	912	155	2513
d1, Uniform Delay [s]	33.95	32.57	9.91	8.09	37.85	4.73
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.77	2.31	0.88	0.61	8.19	0.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.61	0.50	0.24	0.78	0.49
d, Delay for Lane Group [s/veh]	39.72	34.88	10.80	8.70	46.04	5.42
Lane Group LOS	D	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.02	3.07	4.28	1.54	2.69	2.88
50th-Percentile Queue Length [ft/ln]	125.54	76.64	106.99	38.52	67.17	71.92
95th-Percentile Queue Length [veh/ln]	8.70	5.52	7.67	2.77	4.84	5.18
95th-Percentile Queue Length [ft/ln]	217.42	137.95	191.81	69.33	120.91	129.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.72	34.88	10.80	8.70	46.04	5.42
Movement LOS	D	C	B	A	D	A
d_A, Approach Delay [s/veh]	37.79		10.43		9.04	
Approach LOS	D		B		A	
d_I, Intersection Delay [s/veh]	13.50					
Intersection LOS	B					
Intersection V/C	0.551					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	32.21	0.00	32.21
l_p,int, Pedestrian LOS Score for Intersection	2.299	0.000	3.041
Crosswalk LOS	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	42.50	42.50	42.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.156	5.252
Bicycle LOS	D	F	F

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	17.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.097

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	30	0	344	35	0	360
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	0	344	35	0	360
Peak Hour Factor	0.9275	0.9275	0.9275	0.9275	0.9275	0.9275
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	0	93	9	0	97
Total Analysis Volume [veh/h]	32	0	371	38	0	388
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.13	11.61	0.00	0.00	8.05	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.32	0.32	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.02	8.02	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	17.13		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.66					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: Nevada St (NS) at Beaumont Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.035

Intersection Setup

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Base Volume Input [veh/h]	18	20	29	119	195	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	20	29	119	195	6
Peak Hour Factor	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	6	8	34	55	2
Total Analysis Volume [veh/h]	20	23	33	135	222	7
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.03	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.64	9.75	7.73	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.20	0.20	0.07	0.07	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.03	5.03	1.64	1.64	0.00	0.00
d_A, Approach Delay [s/veh]	10.63		1.52		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.62					
Intersection LOS	B					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: California St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	19.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.601

Intersection Setup

Name	California St		Barton Rd		Barton Rd		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	0	0
Pocket Length [ft]	100.00	100.00	76.00	100.00	178.00	100.00	100.00
Speed [mph]	45.00		55.00		55.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		Yes		

Volumes

Name	California St		Barton Rd		Barton Rd		
Base Volume Input [veh/h]	351	175	342	1217	0	678	341
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	351	175	342	1217	0	678	341
Peak Hour Factor	0.9334	0.9334	0.9334	0.9334	1.0000	0.9334	0.9334
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	94	47	92	326	0	182	91
Total Analysis Volume [veh/h]	376	187	366	1304	0	726	365
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	3	8	0	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	31	0	31	69	0	38	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	20	0	0	38	0	27	0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	24	78	50	50	50
g / C, Green / Cycle	0.14	0.14	0.24	0.78	0.50	0.50	0.50
(v / s)_i Volume / Saturation Flow Rate	0.11	0.07	0.21	0.38	0.00	0.21	0.24
s, saturation flow rate [veh/h]	3329	2708	1714	3427	429	3427	1530
c, Capacity [veh/h]	476	387	404	2663	218	1719	767
d1, Uniform Delay [s]	41.39	39.44	37.17	4.02	0.00	15.76	16.32
k, delay calibration	0.11	0.11	0.12	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.97	0.93	8.52	0.65	0.00	0.76	2.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.48	0.91	0.49	0.00	0.42	0.48
d, Delay for Lane Group [s/veh]	44.36	40.37	45.69	4.66	0.00	16.53	18.43
Lane Group LOS	D	D	D	A	A	B	B
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.49	2.08	8.97	2.53	0.00	4.71	5.16
50th-Percentile Queue Length [ft/ln]	112.16	52.08	224.22	63.14	0.00	117.64	128.93
95th-Percentile Queue Length [veh/ln]	7.96	3.75	13.88	4.55	0.00	8.26	8.88
95th-Percentile Queue Length [ft/ln]	199.00	93.75	347.01	113.65	0.00	206.58	222.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.36	40.37	45.69	4.66	0.00	16.53	18.43
Movement LOS	D	D	D	A	A	B	B
d_A, Approach Delay [s/veh]	43.04		13.66		17.16		
Approach LOS	D		B		B		
d_I, Intersection Delay [s/veh]	19.78						
Intersection LOS	B						
Intersection V/C	0.601						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	0.00	39.61
l_p,int, Pedestrian LOS Score for Intersection	2.773	0.000	3.306
Crosswalk LOS	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	50.00	50.00	50.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.510	5.032
Bicycle LOS	D	F	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: New Jersey St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	10.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.552

Intersection Setup

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	160.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Base Volume Input [veh/h]	3	0	3	77	0	83	72	1481	4	5	936	27
Base Volume Adjustment Factor	1.0595	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0595	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	3	77	0	83	72	1481	4	5	936	27
Peak Hour Factor	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	1	20	0	22	19	393	1	1	248	7
Total Analysis Volume [veh/h]	3	0	3	82	0	88	76	1570	4	5	992	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	16	63	0	11	58	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	5	0	0	15	0	0	26	0	0	26	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	6	75	75	1	70	70
g / C, Green / Cycle	0.12	0.12	0.12	0.06	0.75	0.75	0.01	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.01	0.06	0.06	0.04	0.46	0.00	0.00	0.29	0.02
s, saturation flow rate [veh/h]	765	1436	1530	1714	3427	1530	1714	3427	1530
c, Capacity [veh/h]	143	94	179	106	2584	1154	16	2404	1073
d1, Uniform Delay [s]	39.30	43.23	41.37	46.07	5.58	3.03	49.23	6.27	4.54
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.12	20.70	2.09	8.85	1.07	0.01	11.20	0.52	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.87	0.49	0.72	0.61	0.00	0.32	0.41	0.03
d, Delay for Lane Group [s/veh]	39.42	63.93	43.46	54.93	6.66	3.04	60.44	6.79	4.59
Lane Group LOS	D	E	D	D	A	A	E	A	A
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.14	2.53	2.15	2.01	4.47	0.01	0.17	3.16	0.14
50th-Percentile Queue Length [ft/ln]	3.41	63.21	53.63	50.32	111.82	0.33	4.17	79.05	3.51
95th-Percentile Queue Length [veh/ln]	0.25	4.55	3.86	3.62	7.94	0.02	0.30	5.69	0.25
95th-Percentile Queue Length [ft/ln]	6.14	113.78	96.53	90.58	198.53	0.59	7.50	142.29	6.32

Movement, Approach, & Intersection Results

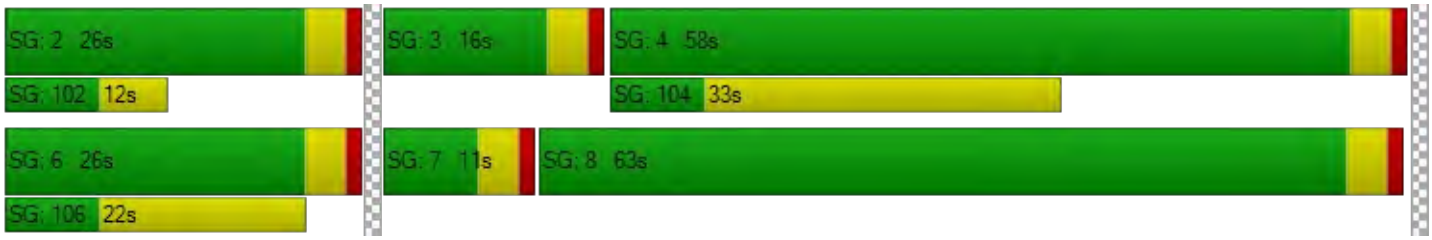
d_M, Delay for Movement [s/veh]	39.42	39.42	39.42	63.93	43.46	43.46	54.93	6.66	3.04	60.44	6.79	4.59
Movement LOS	D	D	D	E	D	D	D	A	A	E	A	A
d_A, Approach Delay [s/veh]	39.42			53.34			8.87			6.99		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.91											
Intersection LOS	B											
Intersection V/C	0.552											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	39.61	39.61	39.61
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.020	3.301	3.400
Crosswalk LOS	F	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	440	440	1180	1080
d_b, Bicycle Delay [s]	30.42	30.42	8.41	10.58
l_b,int, Bicycle LOS Score for Intersection	1.570	1.840	2.921	2.406
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: New Jersey St (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	New Jersey St		New Jersey St		Bermudez St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	New Jersey St		New Jersey St		Bermudez St	
Base Volume Input [veh/h]	4	2	3	3	0	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	2	3	3	0	2
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	1	0	1
Total Analysis Volume [veh/h]	6	3	4	4	0	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.22	0.00	8.61	8.34
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.14	0.14	0.21	0.21
d_A, Approach Delay [s/veh]	0.00		3.61		8.34	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.70					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: San Timoteo Canyon Rd (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.676

Intersection Setup

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	1	0
Pocket Length [ft]	155.00	100.00	100.00	100.00	200.00	100.00
Speed [mph]	45.00		55.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Base Volume Input [veh/h]	179	137	1309	238	193	791
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	179	137	1309	238	193	791
Peak Hour Factor	0.9301	0.9301	0.9301	0.9301	0.9301	0.9301
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	48	37	352	64	52	213
Total Analysis Volume [veh/h]	192	147	1407	256	208	850
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	125
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	51	0	53	0	21	74
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	20	0	25	0	0	25
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	125	125	125	125	125	125
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	79	79	17	100
g / C, Green / Cycle	0.13	0.13	0.63	0.63	0.14	0.80
(v / s)_i Volume / Saturation Flow Rate	0.11	0.10	0.41	0.17	0.12	0.25
s, saturation flow rate [veh/h]	1714	1530	3427	1530	1714	3427
c, Capacity [veh/h]	226	202	2173	970	237	2756
d1, Uniform Delay [s]	53.02	52.09	14.20	10.05	52.78	3.18
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.65	4.99	1.51	0.66	9.96	0.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.73	0.65	0.26	0.88	0.31
d, Delay for Lane Group [s/veh]	61.67	57.08	15.71	10.72	62.74	3.47
Lane Group LOS	E	E	B	B	E	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	6.29	4.60	10.83	2.85	6.89	1.94
50th-Percentile Queue Length [ft/ln]	157.19	115.00	270.68	71.27	172.29	48.47
95th-Percentile Queue Length [veh/ln]	10.40	8.12	16.22	5.13	11.20	3.49
95th-Percentile Queue Length [ft/ln]	259.99	202.94	405.59	128.29	279.92	87.24

Movement, Approach, & Intersection Results

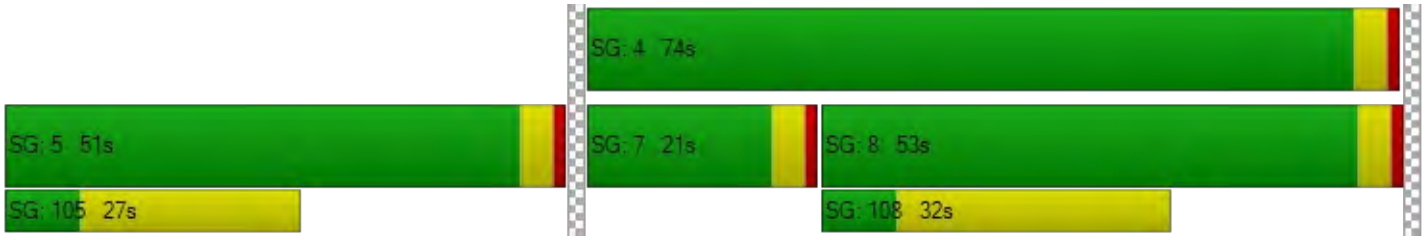
d_M, Delay for Movement [s/veh]	61.67	57.08	15.71	10.72	62.74	3.47
Movement LOS	E	E	B	B	E	A
d_A, Approach Delay [s/veh]	59.68		14.94		15.13	
Approach LOS	E		B		B	
d_I, Intersection Delay [s/veh]	19.96					
Intersection LOS	B					
Intersection V/C	0.676					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.98	0.00	51.98
l_p,int, Pedestrian LOS Score for Intersection	2.347	0.000	3.080
Crosswalk LOS	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	62.50	62.50	62.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.504	5.005
Bicycle LOS	D	F	F

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	18.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.092

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	27	4	464	59	1	300
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	4	464	59	1	300
Peak Hour Factor	0.9547	0.9547	0.9547	0.9547	0.9547	0.9547
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	1	122	15	0	79
Total Analysis Volume [veh/h]	28	4	486	62	1	314
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	18.01	12.62	0.00	0.00	8.40	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.33	0.33	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.16	8.16	0.00	0.00	0.07	0.07
d_A, Approach Delay [s/veh]	17.34		0.00		0.03	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.63					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: Nevada St (NS) at Beaumont Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.019

Intersection Setup

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Base Volume Input [veh/h]	11	21	16	155	74	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	21	16	155	74	6
Peak Hour Factor	0.8704	0.8704	0.8704	0.8704	0.8704	0.8704
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	6	5	45	21	2
Total Analysis Volume [veh/h]	13	24	18	178	85	7
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.02	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.45	8.88	7.40	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.14	0.14	0.03	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.42	3.42	0.80	0.80	0.00	0.00
d_A, Approach Delay [s/veh]	9.44		0.68		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.48					
Intersection LOS	B					

EXISTING PLUS PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: California St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	28.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.664

Intersection Setup

Name	California St		Barton Rd		Barton Rd		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	0	0
Pocket Length [ft]	100.00	100.00	76.00	100.00	178.00	100.00	100.00
Speed [mph]	45.00		55.00		55.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		Yes		

Volumes

Name	California St		Barton Rd		Barton Rd		
Base Volume Input [veh/h]	472	269	225	687	0	932	431
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	0	0	1	0	4	18
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	479	269	225	688	0	936	449
Peak Hour Factor	0.8981	0.8981	0.8981	0.8981	1.0000	0.8981	0.8981
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	133	75	63	192	0	261	125
Total Analysis Volume [veh/h]	533	300	251	766	0	1042	500
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	3	8	0	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	35	0	31	95	0	64	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	20	0	0	38	0	27	0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	130	130	130	130	130	130	130
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	24	24	21	98	73	73	73
g / C, Green / Cycle	0.18	0.18	0.16	0.75	0.56	0.56	0.56
(v / s)_i Volume / Saturation Flow Rate	0.16	0.11	0.15	0.22	0.00	0.30	0.33
s, saturation flow rate [veh/h]	3329	2708	1714	3427	713	3427	1530
c, Capacity [veh/h]	613	499	278	2585	393	1924	859
d1, Uniform Delay [s]	51.47	48.61	53.42	5.05	0.00	17.95	18.56
k, delay calibration	0.11	0.11	0.13	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.96	1.17	12.16	0.29	0.00	1.10	2.88
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.60	0.90	0.30	0.00	0.54	0.58
d, Delay for Lane Group [s/veh]	55.42	49.78	65.58	5.34	0.00	19.05	21.44
Lane Group LOS	E	D	E	A	A	B	C
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	8.55	4.45	8.65	2.50	0.00	9.15	9.47
50th-Percentile Queue Length [ft/ln]	213.69	111.15	216.20	62.50	0.00	228.63	236.70
95th-Percentile Queue Length [veh/ln]	13.34	7.90	13.47	4.50	0.00	14.10	14.51
95th-Percentile Queue Length [ft/ln]	333.56	197.60	336.78	112.51	0.00	352.62	362.86

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	55.42	49.78	65.58	5.34	0.00	19.05	21.44
Movement LOS	E	D	E	A	A	B	C
d_A, Approach Delay [s/veh]	53.39		20.21		19.83		
Approach LOS	D		C		B		
d_I, Intersection Delay [s/veh]	28.18						
Intersection LOS	C						
Intersection V/C	0.664						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	54.47	0.00	54.47
l_p,int, Pedestrian LOS Score for Intersection	2.857	0.000	3.337
Crosswalk LOS	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	65.00	65.00	65.00
l_b,int, Bicycle LOS Score for Intersection	4.132	4.971	5.405
Bicycle LOS	D	E	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: New Jersey St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	10.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.554

Intersection Setup

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	160.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Base Volume Input [veh/h]	3	0	3	60	4	87	60	1076	6	3	1289	71
Base Volume Adjustment Factor	1.0595	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0595	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	3	10	0	1	0	0	4	5	3	10	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	3	13	60	5	87	60	1080	11	6	1299	71
Peak Hour Factor	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	4	16	1	24	16	295	3	2	355	19
Total Analysis Volume [veh/h]	16	3	14	66	5	95	66	1180	12	7	1419	78
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	11	53	0	11	53	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	5	0	0	15	0	0	26	0	0	26	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	6	68	68	1	64	64
g / C, Green / Cycle	0.10	0.10	0.10	0.06	0.76	0.76	0.01	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.06	0.05	0.06	0.04	0.34	0.01	0.00	0.41	0.05
s, saturation flow rate [veh/h]	546	1418	1542	1714	3427	1530	1714	3427	1530
c, Capacity [veh/h]	112	81	150	108	2594	1158	22	2422	1081
d1, Uniform Delay [s]	37.61	39.73	39.23	41.10	4.05	2.68	44.05	6.61	4.08
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.43	17.68	5.06	5.50	0.58	0.02	8.33	1.05	0.13
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.29	0.82	0.67	0.61	0.45	0.01	0.32	0.59	0.07
d, Delay for Lane Group [s/veh]	39.04	57.42	44.29	46.60	4.63	2.70	52.38	7.66	4.21
Lane Group LOS	D	E	D	D	A	A	D	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.71	1.82	2.34	1.50	2.08	0.03	0.20	4.39	0.31
50th-Percentile Queue Length [ft/ln]	17.86	45.47	58.44	37.43	51.92	0.76	4.89	109.75	7.82
95th-Percentile Queue Length [veh/ln]	1.29	3.27	4.21	2.69	3.74	0.05	0.35	7.83	0.56
95th-Percentile Queue Length [ft/ln]	32.14	81.84	105.19	67.37	93.45	1.37	8.79	195.65	14.08

Movement, Approach, & Intersection Results

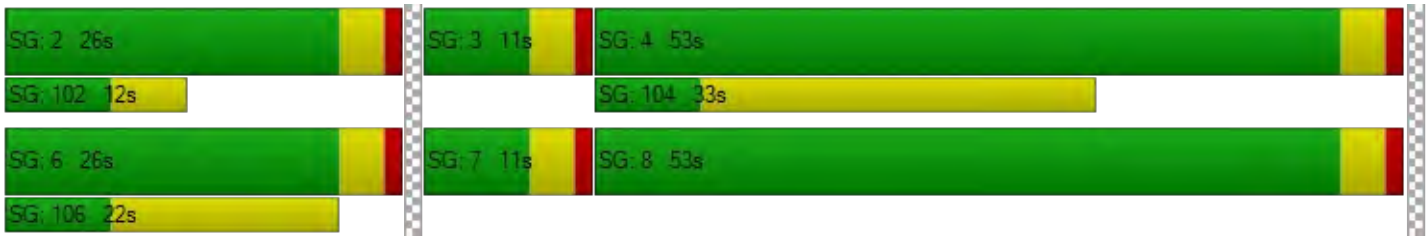
d_M, Delay for Movement [s/veh]	39.04	39.04	39.04	57.42	44.29	44.29	46.60	4.63	2.70	52.38	7.66	4.21
Movement LOS	D	D	D	E	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	39.04			49.51			6.82			7.69		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.01											
Intersection LOS	B											
Intersection V/C	0.554											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.024	3.328	3.393
Crosswalk LOS	F	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	1089	1089
d_b, Bicycle Delay [s]	25.69	25.69	9.34	9.34
l_b,int, Bicycle LOS Score for Intersection	1.614	1.834	2.597	2.800
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: New Jersey St (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	New Jersey St		New Jersey St		Bermudez St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	New Jersey St		New Jersey St		Bermudez St	
Base Volume Input [veh/h]	4	0	5	7	0	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	16	0	3	6	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	0	8	13	0	10
Peak Hour Factor	0.6071	0.6071	0.6071	0.6071	0.6071	0.6071
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	0	3	5	0	4
Total Analysis Volume [veh/h]	33	0	13	21	0	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	7.28	0.00	8.97	8.49
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.05	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.38	0.38	1.16	1.16
d_A, Approach Delay [s/veh]	0.00		2.78		8.49	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.78					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: San Timoteo Canyon Rd (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	13.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.562

Intersection Setup

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	1	0
Pocket Length [ft]	155.00	100.00	100.00	100.00	200.00	100.00
Speed [mph]	45.00		55.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Base Volume Input [veh/h]	224	149	940	198	111	1134
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	7	10	4	2	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	234	156	950	202	113	1137
Peak Hour Factor	0.9174	0.9174	0.9174	0.9174	0.9174	0.9174
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	64	43	259	55	31	310
Total Analysis Volume [veh/h]	255	170	1036	220	123	1239
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	38	0	36	0	11	47
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	20	0	25	0	0	25
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	50	50	8	62
g / C, Green / Cycle	0.18	0.18	0.59	0.59	0.09	0.73
(v / s)_i Volume / Saturation Flow Rate	0.15	0.11	0.30	0.14	0.07	0.36
s, saturation flow rate [veh/h]	1714	1530	3427	1530	1714	3427
c, Capacity [veh/h]	307	274	2015	899	157	2491
d1, Uniform Delay [s]	33.66	32.24	10.36	8.44	37.79	4.97
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.75	2.28	0.94	0.65	8.14	0.71
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.62	0.51	0.24	0.78	0.50
d, Delay for Lane Group [s/veh]	39.41	34.52	11.30	9.09	45.93	5.69
Lane Group LOS	D	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.23	3.20	4.49	1.63	2.73	3.04
50th-Percentile Queue Length [ft/ln]	130.80	80.03	112.35	40.64	68.18	76.12
95th-Percentile Queue Length [veh/ln]	8.98	5.76	7.97	2.93	4.91	5.48
95th-Percentile Queue Length [ft/ln]	224.59	144.05	199.27	73.16	122.73	137.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.41	34.52	11.30	9.09	45.93	5.69
Movement LOS	D	C	B	A	D	A
d_A, Approach Delay [s/veh]	37.45		10.91		9.32	
Approach LOS	D		B		A	
d_I, Intersection Delay [s/veh]	13.91					
Intersection LOS	B					
Intersection V/C	0.562					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	32.21	0.00	32.21
l_p,int, Pedestrian LOS Score for Intersection	2.311	0.000	3.048
Crosswalk LOS	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	42.50	42.50	42.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.169	5.256
Bicycle LOS	D	F	F

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	17.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.132

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	30	0	344	35	0	360
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	0	3	4	0	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	0	347	39	0	361
Peak Hour Factor	0.9275	0.9275	0.9275	0.9275	0.9275	0.9275
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	94	11	0	97
Total Analysis Volume [veh/h]	43	0	374	42	0	389
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.13	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.71	12.14	0.00	0.00	8.07	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.45	0.45	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	11.25	11.25	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	17.71		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.90					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: Nevada St (NS) at Beaumont Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.050

Intersection Setup

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Base Volume Input [veh/h]	18	20	29	119	195	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	14	4	0	0	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	34	33	119	195	8
Peak Hour Factor	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	10	9	34	55	2
Total Analysis Volume [veh/h]	28	39	38	135	222	9
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.05	0.03	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.96	9.97	7.75	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.32	0.32	0.08	0.08	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.07	8.07	1.88	1.88	0.00	0.00
d_A, Approach Delay [s/veh]	10.80		1.70		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.16					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: Project Dwy (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		Bermudez St		Bermudez St	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		Bermudez St		Bermudez St	
Base Volume Input [veh/h]	0	0	0	5	1	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	3	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	9	3	5	1	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	1	1	0	0
Total Analysis Volume [veh/h]	0	10	3	5	1	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.59	8.33	7.21	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.69	0.69	0.14	0.14	0.00	0.00
d_A, Approach Delay [s/veh]	8.33		2.70		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.52					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 8: San Timoteo Canyon Rd (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	16.0
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

Intersection Setup

Name	San Timoteo Canyon Rd		San Timoteo Canyon Rd		Project Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	San Timoteo Canyon Rd		San Timoteo Canyon Rd		Project Dwy	
Base Volume Input [veh/h]	0	390	375	0	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	10	4	2	7	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	400	379	2	7	7
Peak Hour Factor	0.9275	0.9275	0.9275	0.9275	0.9275	0.9275
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	108	102	1	2	2
Total Analysis Volume [veh/h]	1	431	409	2	8	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	8.11	0.00	0.00	0.00	16.01	10.88
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.11	0.11
95th-Percentile Queue Length [ft/ln]	0.06	0.00	0.00	0.00	2.81	2.81
d_A, Approach Delay [s/veh]	0.02		0.00		13.44	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.26					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 9: Nevada St (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.1
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Nevada St		Nevada St		Project Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Nevada St		Project Dwy	
Base Volume Input [veh/h]	0	30	35	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	0	0	4	10	21
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	30	35	4	10	21
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	8	10	1	3	6
Total Analysis Volume [veh/h]	7	33	38	4	11	23
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.02
d_M, Delay for Movement [s/veh]	7.29	0.00	0.00	0.00	9.06	8.60
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.11	0.11
95th-Percentile Queue Length [ft/ln]	0.29	0.29	0.00	0.00	2.65	2.65
d_A, Approach Delay [s/veh]	1.28		0.00		8.75	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.00					
Intersection LOS	A					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: California St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.619

Intersection Setup

Name	California St		Barton Rd		Barton Rd		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	0	0
Pocket Length [ft]	100.00	100.00	76.00	100.00	178.00	100.00	100.00
Speed [mph]	45.00		55.00		55.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		Yes		

Volumes

Name	California St		Barton Rd		Barton Rd		
Base Volume Input [veh/h]	351	175	342	1217	0	678	341
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	0	0	4	0	2	13
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	374	175	342	1221	0	680	354
Peak Hour Factor	0.9334	0.9334	0.9334	0.9334	1.0000	0.9334	0.9334
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	100	47	92	327	0	182	95
Total Analysis Volume [veh/h]	401	187	366	1308	0	729	379
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	3	8	0	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	31	0	31	69	0	38	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	20	0	0	38	0	27	0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	24	77	49	49	49
g / C, Green / Cycle	0.15	0.15	0.24	0.77	0.49	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.12	0.07	0.21	0.38	0.00	0.21	0.25
s, saturation flow rate [veh/h]	3329	2708	1714	3427	427	3427	1530
c, Capacity [veh/h]	502	408	403	2636	212	1693	756
d1, Uniform Delay [s]	41.00	38.74	37.18	4.31	0.00	16.27	17.02
k, delay calibration	0.11	0.11	0.13	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.98	0.80	9.01	0.67	0.00	0.80	2.37
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.46	0.91	0.50	0.00	0.43	0.50
d, Delay for Lane Group [s/veh]	43.98	39.54	46.19	4.98	0.00	17.07	19.39
Lane Group LOS	D	D	D	A	A	B	B
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.77	2.06	9.02	2.77	0.00	4.83	5.55
50th-Percentile Queue Length [ft/ln]	119.34	51.43	225.60	69.22	0.00	120.83	138.80
95th-Percentile Queue Length [veh/ln]	8.36	3.70	13.95	4.98	0.00	8.44	9.42
95th-Percentile Queue Length [ft/ln]	208.92	92.57	348.76	124.59	0.00	210.97	235.41

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.98	39.54	46.19	4.98	0.00	17.07	19.39
Movement LOS	D	D	D	A	A	B	B
d_A, Approach Delay [s/veh]	42.57		13.99		17.86		
Approach LOS	D		B		B		
d_I, Intersection Delay [s/veh]	20.25						
Intersection LOS	C						
Intersection V/C	0.619						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	0.00	39.61
l_p,int, Pedestrian LOS Score for Intersection	2.783	0.000	3.318
Crosswalk LOS	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	50.00	50.00	50.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.513	5.047
Bicycle LOS	D	F	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: New Jersey St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	11.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.565

Intersection Setup

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	160.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Base Volume Input [veh/h]	3	0	3	77	0	83	72	1481	4	5	936	27
Base Volume Adjustment Factor	1.0595	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0595	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	2	7	0	4	0	0	12	16	11	7	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	2	10	77	4	83	72	1493	20	16	943	27
Peak Hour Factor	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	3	20	1	22	19	396	5	4	250	7
Total Analysis Volume [veh/h]	13	2	11	82	4	88	76	1583	21	17	1000	29
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	16	63	0	11	58	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	5	0	0	15	0	0	26	0	0	26	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	6	73	73	3	70	70
g / C, Green / Cycle	0.12	0.12	0.12	0.06	0.73	0.73	0.03	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.03	0.06	0.06	0.04	0.46	0.01	0.01	0.29	0.02
s, saturation flow rate [veh/h]	760	1423	1540	1714	3427	1530	1714	3427	1530
c, Capacity [veh/h]	144	93	183	106	2518	1124	45	2397	1070
d1, Uniform Delay [s]	39.61	43.12	41.29	46.07	6.54	3.57	47.87	6.37	4.60
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.59	22.50	2.13	8.85	1.20	0.03	5.07	0.54	0.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.18	0.88	0.50	0.72	0.63	0.02	0.38	0.42	0.03
d, Delay for Lane Group [s/veh]	40.20	65.63	43.41	54.93	7.74	3.60	52.94	6.91	4.65
Lane Group LOS	D	E	D	D	A	A	D	A	A
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.60	2.57	2.24	2.01	5.36	0.08	0.46	3.24	0.14
50th-Percentile Queue Length [ft/ln]	14.99	64.15	56.05	50.32	133.88	2.02	11.48	80.93	3.55
95th-Percentile Queue Length [veh/ln]	1.08	4.62	4.04	3.62	9.15	0.15	0.83	5.83	0.26
95th-Percentile Queue Length [ft/ln]	26.99	115.47	100.89	90.58	228.76	3.64	20.66	145.67	6.39

Movement, Approach, & Intersection Results

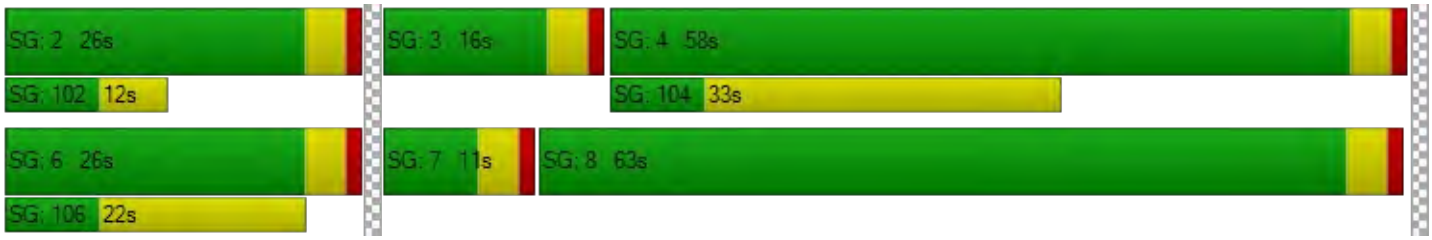
d_M, Delay for Movement [s/veh]	40.20	40.20	40.20	65.63	43.41	43.41	54.93	7.74	3.60	52.94	6.91	4.65
Movement LOS	D	D	D	E	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	40.20			53.88			9.82			7.59		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	11.92											
Intersection LOS	B											
Intersection V/C	0.565											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	39.61	39.61	39.61
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.021	3.327	3.410
Crosswalk LOS	F	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	440	440	1180	1080
d_b, Bicycle Delay [s]	30.42	30.42	8.41	10.58
l_b,int, Bicycle LOS Score for Intersection	1.603	1.847	2.946	2.423
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: New Jersey St (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.1
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	New Jersey St		New Jersey St		Bermudez St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	New Jersey St		New Jersey St		Bermudez St	
Base Volume Input [veh/h]	4	2	3	3	0	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	12	19	0	6
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	2	15	22	0	8
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	5	8	0	3
Total Analysis Volume [veh/h]	23	3	21	31	0	11
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.28	0.00	9.06	8.44
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.03	0.03	0.03	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.71	0.71	0.79	0.79
d_A, Approach Delay [s/veh]	0.00		2.94		8.44	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.76					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: San Timoteo Canyon Rd (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	20.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.688

Intersection Setup

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	1	0
Pocket Length [ft]	155.00	100.00	100.00	100.00	200.00	100.00
Speed [mph]	45.00		55.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Base Volume Input [veh/h]	179	137	1309	238	193	791
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	5	7	12	7	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	186	142	1316	250	200	802
Peak Hour Factor	0.9301	0.9301	0.9301	0.9301	0.9301	0.9301
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	50	38	354	67	54	216
Total Analysis Volume [veh/h]	200	153	1415	269	215	862
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	125
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	51	0	53	0	21	74
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	20	0	25	0	0	25
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	125	125	125	125	125	125
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	17	17	78	78	18	100
g / C, Green / Cycle	0.14	0.14	0.62	0.62	0.14	0.80
(v / s)_i Volume / Saturation Flow Rate	0.12	0.10	0.41	0.18	0.13	0.25
s, saturation flow rate [veh/h]	1714	1530	3427	1530	1714	3427
c, Capacity [veh/h]	234	209	2142	956	244	2740
d1, Uniform Delay [s]	52.71	51.74	14.96	10.66	52.52	3.36
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.62	4.90	1.62	0.74	9.94	0.30
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.73	0.66	0.28	0.88	0.31
d, Delay for Lane Group [s/veh]	61.33	56.63	16.58	11.39	62.47	3.66
Lane Group LOS	E	E	B	B	E	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	6.54	4.77	11.33	3.13	7.11	2.07
50th-Percentile Queue Length [ft/ln]	163.45	119.31	283.18	78.32	177.87	51.81
95th-Percentile Queue Length [veh/ln]	10.73	8.36	16.85	5.64	11.49	3.73
95th-Percentile Queue Length [ft/ln]	268.29	208.88	421.17	140.98	287.23	93.26

Movement, Approach, & Intersection Results

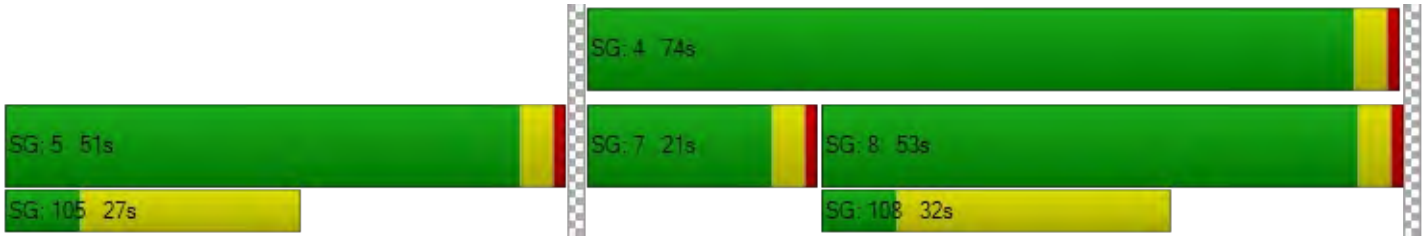
d_M, Delay for Movement [s/veh]	61.33	56.63	16.58	11.39	62.47	3.66
Movement LOS	E	E	B	B	E	A
d_A, Approach Delay [s/veh]	59.30		15.75		15.40	
Approach LOS	E		B		B	
d_I, Intersection Delay [s/veh]	20.56					
Intersection LOS	C					
Intersection V/C	0.688					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.98	0.00	51.98
l_p,int, Pedestrian LOS Score for Intersection	2.364	0.000	3.089
Crosswalk LOS	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	62.50	62.50	62.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.522	5.021
Bicycle LOS	D	F	F

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	18.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.120

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	27	4	464	59	1	300
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	0	2	12	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	4	466	71	1	304
Peak Hour Factor	0.9547	0.9547	0.9547	0.9547	0.9547	0.9547
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	1	122	19	0	80
Total Analysis Volume [veh/h]	36	4	488	74	1	318
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	18.65	13.13	0.00	0.00	8.43	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.43	0.43	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	10.78	10.78	0.00	0.00	0.07	0.07
d_A, Approach Delay [s/veh]	18.09		0.00		0.03	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.80					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: Nevada St (NS) at Beaumont Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.9
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.027

Intersection Setup

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Base Volume Input [veh/h]	11	21	16	155	74	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	9	15	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	30	31	155	74	14
Peak Hour Factor	0.8704	0.8704	0.8704	0.8704	0.8704	0.8704
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	9	9	45	21	4
Total Analysis Volume [veh/h]	17	34	36	178	85	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.04	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.91	9.00	7.45	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.20	0.20	0.06	0.06	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.92	4.92	1.58	1.58	0.00	0.00
d_A, Approach Delay [s/veh]	9.64		1.25		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.08					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: Project Dwy (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		Bermudez St		Bermudez St	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		Bermudez St		Bermudez St	
Base Volume Input [veh/h]	0	0	0	5	2	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	12	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	6	12	5	2	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	3	1	1	0
Total Analysis Volume [veh/h]	0	7	13	5	2	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.70	8.33	7.22	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.49	0.49	0.55	0.55	0.00	0.00
d_A, Approach Delay [s/veh]	8.33		5.22		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.64					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 8: San Timoteo Canyon Rd (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	17.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.016

Intersection Setup

Name	San Timoteo Canyon Rd		San Timoteo Canyon Rd		Project Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	San Timoteo Canyon Rd		San Timoteo Canyon Rd		Project Dwy	
Base Volume Input [veh/h]	0	326	520	1	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	7	12	7	5	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	333	532	8	5	6
Peak Hour Factor	0.9599	0.9599	0.9599	0.9599	0.9599	0.9599
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	87	139	2	1	2
Total Analysis Volume [veh/h]	4	347	554	8	5	6
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	8.55	0.00	0.00	0.00	17.06	12.01
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.00	0.00	0.09	0.09
95th-Percentile Queue Length [ft/ln]	0.30	0.00	0.00	0.00	2.13	2.13
d_A, Approach Delay [s/veh]	0.10		0.00		14.31	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.21					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 9: Nevada St (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

Intersection Setup

Name	Nevada St		Nevada St		Project Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Nevada St		Project Dwy	
Base Volume Input [veh/h]	0	28	59	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	0	0	12	7	13
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	28	59	12	7	13
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	8	16	3	2	4
Total Analysis Volume [veh/h]	25	30	64	13	8	14
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	7.38	0.00	0.00	0.00	9.42	8.70
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	1.14	1.14	0.00	0.00	1.82	1.82
d_A, Approach Delay [s/veh]	3.36		0.00		8.96	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.48					
Intersection LOS	A					

OPENING YEAR (2024) WITHOUT PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: California St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	30.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.693

Intersection Setup

Name	California St		Barton Rd		Barton Rd		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	0	0
Pocket Length [ft]	100.00	100.00	76.00	100.00	178.00	100.00	100.00
Speed [mph]	45.00		55.00		55.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		Yes		

Volumes

Name	California St		Barton Rd		Barton Rd		
Base Volume Input [veh/h]	472	269	225	687	0	932	431
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	30	42	27	13	0	29	21
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	502	311	252	700	0	961	452
Peak Hour Factor	0.8981	0.8981	0.8981	0.8981	1.0000	0.8981	0.8981
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	140	87	70	195	0	268	126
Total Analysis Volume [veh/h]	559	346	281	779	0	1070	503
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	3	8	0	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	35	0	31	95	0	64	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	20	0	0	38	0	27	0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	130	130	130	130	130	130	130
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	25	23	97	70	70	70
g / C, Green / Cycle	0.19	0.19	0.18	0.75	0.54	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.17	0.13	0.16	0.23	0.00	0.31	0.33
s, saturation flow rate [veh/h]	3329	2708	1714	3427	704	3427	1530
c, Capacity [veh/h]	640	520	307	2558	369	1838	820
d1, Uniform Delay [s]	50.94	48.60	52.32	5.41	0.00	20.31	20.81
k, delay calibration	0.11	0.11	0.19	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.94	1.47	16.69	0.31	0.00	1.36	3.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.66	0.91	0.30	0.00	0.58	0.61
d, Delay for Lane Group [s/veh]	54.88	50.07	69.01	5.72	0.00	21.67	24.22
Lane Group LOS	D	D	E	A	A	C	C
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	8.95	5.18	10.03	2.70	0.00	10.25	10.32
50th-Percentile Queue Length [ft/ln]	223.64	129.54	250.70	67.55	0.00	256.27	257.98
95th-Percentile Queue Length [veh/ln]	13.85	8.91	15.22	4.86	0.00	15.50	15.59
95th-Percentile Queue Length [ft/ln]	346.26	222.86	380.53	121.60	0.00	387.54	389.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	54.88	50.07	69.01	5.72	0.00	21.67	24.22
Movement LOS	D	D	E	A	A	C	C
d_A, Approach Delay [s/veh]	53.04		22.50		22.49		
Approach LOS	D		C		C		
d_I, Intersection Delay [s/veh]	30.30						
Intersection LOS	C						
Intersection V/C	0.693						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	54.47	0.00	54.47
l_p,int, Pedestrian LOS Score for Intersection	2.882	0.000	3.355
Crosswalk LOS	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	65.00	65.00	65.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.007	5.430
Bicycle LOS	D	F	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: New Jersey St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.577

Intersection Setup

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	160.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Base Volume Input [veh/h]	3	0	3	60	4	87	60	1076	6	3	1289	71
Base Volume Adjustment Factor	1.0595	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0595	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.06	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	4	0	5	11	32	0	0	45	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	3	64	4	92	71	1108	6	3	1334	78
Peak Hour Factor	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	1	17	1	25	19	303	2	1	364	21
Total Analysis Volume [veh/h]	3	0	3	70	4	100	78	1210	7	3	1457	85
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	11	53	0	11	53	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	5	0	0	15	0	0	26	0	0	26	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	6	68	68	1	63	63
g / C, Green / Cycle	0.10	0.10	0.10	0.07	0.76	0.76	0.01	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.01	0.05	0.07	0.05	0.35	0.00	0.00	0.43	0.06
s, saturation flow rate [veh/h]	521	1436	1539	1714	3427	1530	1714	3427	1530
c, Capacity [veh/h]	113	81	156	115	2604	1162	10	2394	1069
d1, Uniform Delay [s]	36.69	39.54	38.99	41.06	4.02	2.61	44.56	7.11	4.33
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.19	22.63	4.86	6.91	0.60	0.01	16.20	1.16	0.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.87	0.67	0.68	0.46	0.01	0.30	0.61	0.08
d, Delay for Lane Group [s/veh]	36.89	62.16	43.85	47.97	4.62	2.62	60.77	8.27	4.47
Lane Group LOS	D	E	D	D	A	A	E	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.13	2.01	2.42	1.80	2.09	0.02	0.11	4.86	0.36
50th-Percentile Queue Length [ft/ln]	3.13	50.36	60.44	44.95	52.34	0.43	2.68	121.61	9.03
95th-Percentile Queue Length [veh/ln]	0.23	3.63	4.35	3.24	3.77	0.03	0.19	8.48	0.65
95th-Percentile Queue Length [ft/ln]	5.64	90.65	108.80	80.91	94.21	0.77	4.83	212.04	16.26

Movement, Approach, & Intersection Results

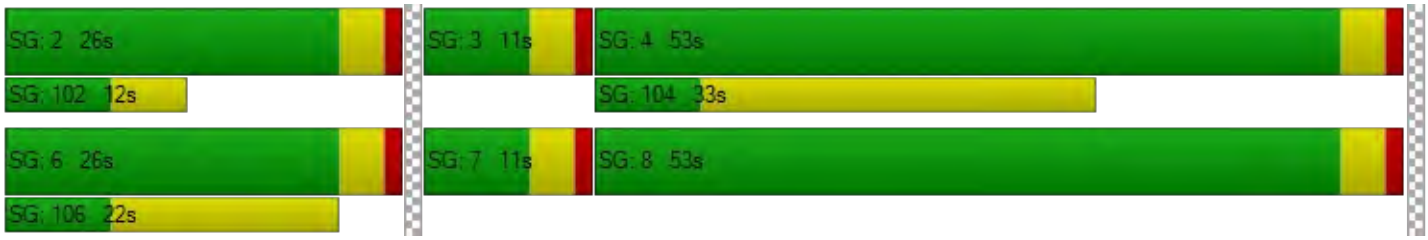
d_M, Delay for Movement [s/veh]	36.89	36.89	36.89	62.16	43.85	43.85	47.97	4.62	2.62	60.77	8.27	4.47
Movement LOS	D	D	D	E	D	D	D	A	A	E	A	A
d_A, Approach Delay [s/veh]	36.89			51.22			7.22			8.16		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.29											
Intersection LOS	B											
Intersection V/C	0.577											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.031	3.327	3.415
Crosswalk LOS	F	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	1089	1089
d_b, Bicycle Delay [s]	25.69	25.69	9.34	9.34
l_b,int, Bicycle LOS Score for Intersection	1.570	1.847	2.628	2.834
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: New Jersey St (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	New Jersey St		New Jersey St		Bermudez St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	New Jersey St		New Jersey St		Bermudez St	
Base Volume Input [veh/h]	4	0	5	7	0	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	0	5	7	0	1
Peak Hour Factor	0.6071	0.6071	0.6071	0.6071	0.6071	0.6071
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	2	3	0	0
Total Analysis Volume [veh/h]	7	0	8	12	0	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.22	0.00	8.69	8.34
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.23	0.23	0.14	0.14
d_A, Approach Delay [s/veh]	0.00		2.89		8.34	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.57					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: San Timoteo Canyon Rd (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	14.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.573

Intersection Setup

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	1	0
Pocket Length [ft]	155.00	100.00	100.00	100.00	200.00	100.00
Speed [mph]	45.00		55.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Base Volume Input [veh/h]	224	149	940	198	111	1134
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	7	20	16	6	37
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	239	156	960	214	117	1171
Peak Hour Factor	0.9174	0.9174	0.9174	0.9174	0.9174	0.9174
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	65	43	262	58	32	319
Total Analysis Volume [veh/h]	261	170	1046	233	128	1276
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	38	0	36	0	11	47
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	20	0	25	0	0	25
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	49	49	8	62
g / C, Green / Cycle	0.18	0.18	0.58	0.58	0.09	0.72
(v / s)_i Volume / Saturation Flow Rate	0.15	0.11	0.31	0.15	0.07	0.37
s, saturation flow rate [veh/h]	1714	1530	3427	1530	1714	3427
c, Capacity [veh/h]	313	280	1991	889	163	2479
d1, Uniform Delay [s]	33.51	31.96	10.75	8.81	37.63	5.19
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.76	2.13	1.00	0.72	8.00	0.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.61	0.53	0.26	0.78	0.51
d, Delay for Lane Group [s/veh]	39.27	34.09	11.74	9.53	45.63	5.96
Lane Group LOS	D	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.35	3.18	4.69	1.79	2.83	3.28
50th-Percentile Queue Length [ft/ln]	133.73	79.43	117.16	44.70	70.69	81.99
95th-Percentile Queue Length [veh/ln]	9.14	5.72	8.24	3.22	5.09	5.90
95th-Percentile Queue Length [ft/ln]	228.55	142.97	205.92	80.46	127.24	147.58

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.27	34.09	11.74	9.53	45.63	5.96
Movement LOS	D	C	B	A	D	A
d_A, Approach Delay [s/veh]	37.23		11.34		9.58	
Approach LOS	D		B		A	
d_I, Intersection Delay [s/veh]	14.13					
Intersection LOS	B					
Intersection V/C	0.573					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	32.21	0.00	32.21
l_p,int, Pedestrian LOS Score for Intersection	2.323	0.000	3.063
Crosswalk LOS	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	42.50	42.50	42.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.188	5.291
Bicycle LOS	D	F	F

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	18.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.135

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	30	0	344	35	0	360
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	0	3	19	0	12
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	0	347	54	0	372
Peak Hour Factor	0.9275	0.9275	0.9275	0.9275	0.9275	0.9275
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	94	15	0	100
Total Analysis Volume [veh/h]	43	0	374	58	0	401
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.14	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	18.11	12.29	0.00	0.00	8.09	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.46	0.46	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	11.59	11.59	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.11		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.89					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: Nevada St (NS) at Beaumont Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.037

Intersection Setup

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Base Volume Input [veh/h]	18	20	29	119	195	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	19	10	1	7	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	39	39	120	202	6
Peak Hour Factor	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	11	11	34	57	2
Total Analysis Volume [veh/h]	20	44	44	137	230	7
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.05	0.03	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.13	9.95	7.77	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.30	0.30	0.09	0.09	0.00	0.00
95th-Percentile Queue Length [ft/ln]	7.48	7.48	2.24	2.24	0.00	0.00
d_A, Approach Delay [s/veh]	10.63		1.89		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.12					
Intersection LOS	B					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: California St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.685

Intersection Setup

Name	California St		Barton Rd		Barton Rd		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	0	0
Pocket Length [ft]	100.00	100.00	76.00	100.00	178.00	100.00	100.00
Speed [mph]	45.00		55.00		55.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		Yes		

Volumes

Name	California St		Barton Rd		Barton Rd		
Base Volume Input [veh/h]	351	175	342	1217	0	678	341
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	39	39	52	32	0	18	47
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	390	214	394	1249	0	696	388
Peak Hour Factor	0.9334	0.9334	0.9334	0.9334	1.0000	0.9334	0.9334
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	104	57	106	335	0	186	104
Total Analysis Volume [veh/h]	418	229	422	1338	0	746	416
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	3	8	0	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	31	0	31	69	0	38	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	20	0	0	38	0	27	0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	27	76	46	46	46
g / C, Green / Cycle	0.16	0.16	0.27	0.76	0.46	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.13	0.08	0.25	0.39	0.00	0.22	0.27
s, saturation flow rate [veh/h]	3329	2708	1714	3427	415	3427	1530
c, Capacity [veh/h]	522	425	459	2615	188	1561	697
d1, Uniform Delay [s]	40.65	38.83	35.58	4.60	0.00	18.95	20.36
k, delay calibration	0.11	0.11	0.20	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.89	1.06	12.93	0.72	0.00	1.05	3.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.54	0.92	0.51	0.00	0.48	0.60
d, Delay for Lane Group [s/veh]	43.54	39.89	48.51	5.32	0.00	20.00	24.11
Lane Group LOS	D	D	D	A	A	C	C
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	4.96	2.55	10.79	3.07	0.00	5.52	7.07
50th-Percentile Queue Length [ft/ln]	123.90	63.67	269.67	76.67	0.00	138.02	176.71
95th-Percentile Queue Length [veh/ln]	8.61	4.58	16.17	5.52	0.00	9.37	11.43
95th-Percentile Queue Length [ft/ln]	215.18	114.60	404.32	138.00	0.00	234.36	285.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.54	39.89	48.51	5.32	0.00	20.00	24.11
Movement LOS	D	D	D	A	A	C	C
d_A, Approach Delay [s/veh]	42.25		15.68		21.47		
Approach LOS	D		B		C		
d_I, Intersection Delay [s/veh]	22.38						
Intersection LOS	C						
Intersection V/C	0.685						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	0.00	39.61
I_p,int, Pedestrian LOS Score for Intersection	2.820	0.000	3.344
Crosswalk LOS	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	50.00	50.00	50.00
I_b,int, Bicycle LOS Score for Intersection	4.132	5.584	5.091
Bicycle LOS	D	F	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: New Jersey St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	12.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.583

Intersection Setup

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	160.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Base Volume Input [veh/h]	3	0	3	77	0	83	72	1481	4	5	936	27
Base Volume Adjustment Factor	1.0595	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0595	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.06	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	9	0	14	8	63	0	0	51	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	3	86	0	97	80	1544	4	5	987	34
Peak Hour Factor	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	1	23	0	26	21	409	1	1	262	9
Total Analysis Volume [veh/h]	3	0	3	91	0	103	85	1637	4	5	1046	36
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	16	63	0	11	58	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	5	0	0	15	0	0	26	0	0	26	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	13	6	74	74	1	69	69
g / C, Green / Cycle	0.13	0.13	0.13	0.06	0.74	0.74	0.01	0.69	0.69
(v / s)_i Volume / Saturation Flow Rate	0.01	0.06	0.07	0.05	0.48	0.00	0.00	0.31	0.02
s, saturation flow rate [veh/h]	727	1436	1530	1714	3427	1530	1714	3427	1530
c, Capacity [veh/h]	149	99	199	109	2538	1133	16	2352	1050
d1, Uniform Delay [s]	38.19	42.59	40.56	46.14	6.44	3.37	49.23	7.08	5.04
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	25.26	2.07	11.45	1.28	0.01	11.20	0.61	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.91	0.52	0.78	0.64	0.00	0.32	0.44	0.03
d, Delay for Lane Group [s/veh]	38.30	67.85	42.63	57.60	7.72	3.38	60.44	7.69	5.10
Lane Group LOS	D	E	D	E	A	A	E	A	A
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.13	2.90	2.49	2.31	5.47	0.01	0.17	3.75	0.19
50th-Percentile Queue Length [ft/ln]	3.35	72.48	62.17	57.83	136.79	0.37	4.17	93.69	4.79
95th-Percentile Queue Length [veh/ln]	0.24	5.22	4.48	4.16	9.31	0.03	0.30	6.75	0.34
95th-Percentile Queue Length [ft/ln]	6.03	130.46	111.91	104.09	232.70	0.66	7.50	168.64	8.62

Movement, Approach, & Intersection Results

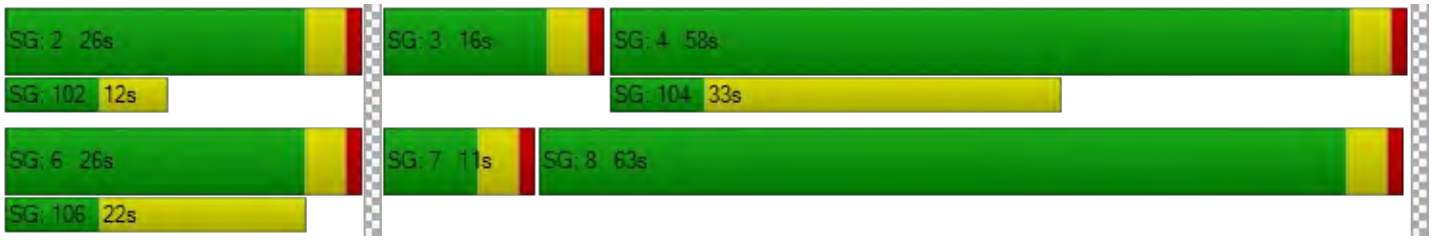
d_M, Delay for Movement [s/veh]	38.30	38.30	38.30	67.85	42.63	42.63	57.60	7.72	3.38	60.44	7.69	5.10
Movement LOS	D	D	D	E	D	D	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	38.30			54.46			10.16			7.85		
Approach LOS	D			D			B			A		
d_I, Intersection Delay [s/veh]	12.24											
Intersection LOS	B											
Intersection V/C	0.583											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	39.61	39.61	39.61
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.030	3.338	3.448
Crosswalk LOS	F	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	440	440	1180	1080
d_b, Bicycle Delay [s]	30.42	30.42	8.41	10.58
l_b,int, Bicycle LOS Score for Intersection	1.570	1.880	2.984	2.456
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: New Jersey St (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	New Jersey St		New Jersey St		Bermudez St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	New Jersey St		New Jersey St		Bermudez St	
Base Volume Input [veh/h]	4	2	3	3	0	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	2	3	3	0	2
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	1	1	1	0	1
Total Analysis Volume [veh/h]	6	3	4	4	0	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.22	0.00	8.61	8.34
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.01	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.14	0.14	0.21	0.21
d_A, Approach Delay [s/veh]	0.00		3.61		8.34	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.70					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: San Timoteo Canyon Rd (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.719

Intersection Setup

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	1	0
Pocket Length [ft]	155.00	100.00	100.00	100.00	200.00	100.00
Speed [mph]	45.00		55.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Base Volume Input [veh/h]	179	137	1309	238	193	791
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	32	13	41	31	12	26
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	211	150	1350	269	205	817
Peak Hour Factor	0.9301	0.9301	0.9301	0.9301	0.9301	0.9301
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	57	40	363	72	55	220
Total Analysis Volume [veh/h]	227	161	1451	289	220	878
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	125
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	51	0	53	0	21	74
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	20	0	25	0	0	25
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	125	125	125	125	125	125
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	19	76	76	18	98
g / C, Green / Cycle	0.15	0.15	0.61	0.61	0.15	0.78
(v / s)_i Volume / Saturation Flow Rate	0.13	0.11	0.42	0.19	0.13	0.26
s, saturation flow rate [veh/h]	1714	1530	3427	1530	1714	3427
c, Capacity [veh/h]	261	233	2078	927	249	2685
d1, Uniform Delay [s]	51.71	50.14	16.80	11.94	52.34	3.94
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.59	3.62	1.98	0.88	9.94	0.33
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.69	0.70	0.31	0.88	0.33
d, Delay for Lane Group [s/veh]	60.30	53.76	18.77	12.82	62.29	4.26
Lane Group LOS	E	D	B	B	E	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.39	4.89	12.72	3.67	7.27	2.45
50th-Percentile Queue Length [ft/ln]	184.66	122.14	317.97	91.65	181.87	61.37
95th-Percentile Queue Length [veh/ln]	11.84	8.51	18.57	6.60	11.70	4.42
95th-Percentile Queue Length [ft/ln]	296.09	212.76	464.19	164.96	292.46	110.47

Movement, Approach, & Intersection Results

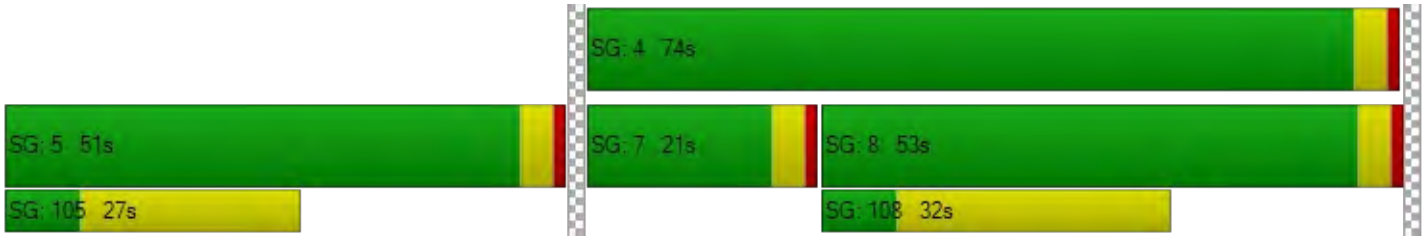
d_M, Delay for Movement [s/veh]	60.30	53.76	18.77	12.82	62.29	4.26
Movement LOS	E	D	B	B	E	A
d_A, Approach Delay [s/veh]	57.58		17.79		15.89	
Approach LOS	E		B		B	
d_I, Intersection Delay [s/veh]	21.93					
Intersection LOS	C					
Intersection V/C	0.719					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.98	0.00	51.98
l_p,int, Pedestrian LOS Score for Intersection	2.393	0.000	3.108
Crosswalk LOS	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	62.50	62.50	62.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.568	5.038
Bicycle LOS	D	F	F

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	21.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.240

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	27	4	464	59	1	300
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	40	0	13	30	0	5
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	67	4	477	89	1	305
Peak Hour Factor	0.9547	0.9547	0.9547	0.9547	0.9547	0.9547
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	18	1	125	23	0	80
Total Analysis Volume [veh/h]	70	4	500	93	1	319
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.24	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	21.28	15.57	0.00	0.00	8.49	0.00
Movement LOS	C	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.96	0.96	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	23.88	23.88	0.00	0.00	0.07	0.07
d_A, Approach Delay [s/veh]	20.97		0.00		0.03	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.58					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: Nevada St (NS) at Beaumont Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

Intersection Setup

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Base Volume Input [veh/h]	11	21	16	155	74	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	30	40	13	11	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	51	56	168	85	6
Peak Hour Factor	0.8704	0.8704	0.8704	0.8704	0.8704	0.8704
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	15	16	48	24	2
Total Analysis Volume [veh/h]	13	59	64	193	98	7
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.06	0.04	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.78	9.14	7.51	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.28	0.28	0.12	0.12	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.91	6.91	2.91	2.91	0.00	0.00
d_A, Approach Delay [s/veh]	9.62		1.87		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.70					
Intersection LOS	B					

OPENING YEAR (2024) WITH PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: California St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	30.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.709

Intersection Setup

Name	California St		Barton Rd		Barton Rd		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	0	0
Pocket Length [ft]	100.00	100.00	76.00	100.00	178.00	100.00	100.00
Speed [mph]	45.00		55.00		55.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		Yes		

Volumes

Name	California St		Barton Rd		Barton Rd		
Base Volume Input [veh/h]	472	269	225	687	0	932	431
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	37	42	27	14	0	33	39
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	509	311	252	701	0	965	470
Peak Hour Factor	0.8981	0.8981	0.8981	0.8981	1.0000	0.8981	0.8981
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	142	87	70	195	0	269	131
Total Analysis Volume [veh/h]	567	346	281	781	0	1074	523
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	3	8	0	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	35	0	31	95	0	64	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	20	0	0	38	0	27	0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	130	130	130	130	130	130	130
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	25	25	23	97	69	69	69
g / C, Green / Cycle	0.19	0.19	0.18	0.74	0.53	0.53	0.53
(v / s)_i Volume / Saturation Flow Rate	0.17	0.13	0.16	0.23	0.00	0.31	0.34
s, saturation flow rate [veh/h]	3329	2708	1714	3427	703	3427	1530
c, Capacity [veh/h]	647	526	307	2550	366	1830	817
d1, Uniform Delay [s]	50.81	48.33	52.33	5.51	0.00	20.54	21.42
k, delay calibration	0.11	0.11	0.20	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.98	1.41	16.98	0.31	0.00	1.39	3.83
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.66	0.91	0.31	0.00	0.59	0.64
d, Delay for Lane Group [s/veh]	54.79	49.74	69.31	5.82	0.00	21.92	25.25
Lane Group LOS	D	D	E	A	A	C	C
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	9.07	5.16	10.05	2.75	0.00	10.37	11.05
50th-Percentile Queue Length [ft/ln]	226.85	129.06	251.31	68.80	0.00	259.30	276.22
95th-Percentile Queue Length [veh/ln]	14.01	8.89	15.25	4.95	0.00	15.65	16.50
95th-Percentile Queue Length [ft/ln]	350.35	222.21	381.31	123.83	0.00	391.34	412.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	54.79	49.74	69.31	5.82	0.00	21.92	25.25
Movement LOS	D	D	E	A	A	C	C
d_A, Approach Delay [s/veh]	52.87		22.62		23.01		
Approach LOS	D		C		C		
d_I, Intersection Delay [s/veh]	30.53						
Intersection LOS	C						
Intersection V/C	0.709						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	54.47	0.00	54.47
l_p,int, Pedestrian LOS Score for Intersection	2.889	0.000	3.364
Crosswalk LOS	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	65.00	65.00	65.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.009	5.450
Bicycle LOS	D	F	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: New Jersey St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.581

Intersection Setup

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	160.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Base Volume Input [veh/h]	3	0	3	60	4	87	60	1076	6	3	1289	71
Base Volume Adjustment Factor	1.0595	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0595	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.06	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	3	10	4	1	5	11	36	5	3	55	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	3	13	64	5	92	71	1112	11	6	1344	78
Peak Hour Factor	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155	0.9155
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	4	17	1	25	19	304	3	2	367	21
Total Analysis Volume [veh/h]	16	3	14	70	5	100	78	1215	12	7	1468	85
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	11	53	0	11	53	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	5	0	0	15	0	0	26	0	0	26	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	9	9	6	67	67	1	63	63
g / C, Green / Cycle	0.10	0.10	0.10	0.07	0.75	0.75	0.01	0.69	0.69
(v / s)_i Volume / Saturation Flow Rate	0.06	0.05	0.07	0.05	0.35	0.01	0.00	0.43	0.06
s, saturation flow rate [veh/h]	564	1418	1541	1714	3427	1530	1714	3427	1530
c, Capacity [veh/h]	118	81	160	115	2570	1148	22	2385	1065
d1, Uniform Delay [s]	37.06	39.42	38.77	41.06	4.36	2.83	44.05	7.28	4.41
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.27	22.68	4.48	6.91	0.63	0.02	8.33	1.20	0.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.28	0.87	0.66	0.68	0.47	0.01	0.32	0.62	0.08
d, Delay for Lane Group [s/veh]	38.33	62.10	43.25	47.97	4.98	2.85	52.38	8.48	4.55
Lane Group LOS	D	E	D	D	A	A	D	A	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.71	2.02	2.42	1.80	2.34	0.03	0.20	5.03	0.37
50th-Percentile Queue Length [ft/ln]	17.64	50.38	60.53	44.95	58.57	0.81	4.89	125.71	9.20
95th-Percentile Queue Length [veh/ln]	1.27	3.63	4.36	3.24	4.22	0.06	0.35	8.71	0.66
95th-Percentile Queue Length [ft/ln]	31.75	90.68	108.95	80.91	105.42	1.46	8.79	217.65	16.56

Movement, Approach, & Intersection Results

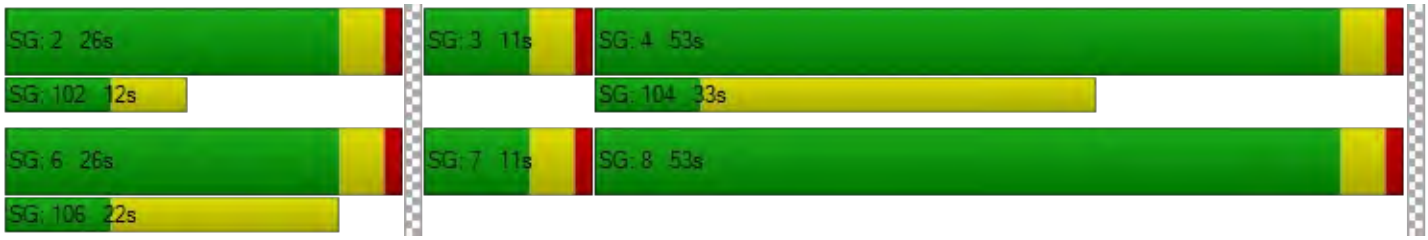
d_M, Delay for Movement [s/veh]	38.33	38.33	38.33	62.10	43.25	43.25	47.97	4.98	2.85	52.38	8.48	4.55
Movement LOS	D	D	D	E	D	D	D	A	A	D	A	A
d_A, Approach Delay [s/veh]	38.33			50.79			7.53			8.47		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	10.80											
Intersection LOS	B											
Intersection V/C	0.581											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.032	3.354	3.423
Crosswalk LOS	F	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	489	489	1089	1089
d_b, Bicycle Delay [s]	25.69	25.69	9.34	9.34
l_b,int, Bicycle LOS Score for Intersection	1.614	1.848	2.636	2.847
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: New Jersey St (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	New Jersey St		New Jersey St		Bermudez St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	New Jersey St		New Jersey St		Bermudez St	
Base Volume Input [veh/h]	4	0	5	7	0	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	16	0	3	6	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	0	8	13	0	10
Peak Hour Factor	0.6071	0.6071	0.6071	0.6071	0.6071	0.6071
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	0	3	5	0	4
Total Analysis Volume [veh/h]	33	0	13	21	0	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.02
d_M, Delay for Movement [s/veh]	0.00	0.00	7.28	0.00	8.97	8.49
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.05	0.05
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.38	0.38	1.16	1.16
d_A, Approach Delay [s/veh]	0.00		2.78		8.49	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.78					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: San Timoteo Canyon Rd (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	14.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.584

Intersection Setup

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	1	0
Pocket Length [ft]	155.00	100.00	100.00	100.00	200.00	100.00
Speed [mph]	45.00		55.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Base Volume Input [veh/h]	224	149	940	198	111	1134
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	25	14	30	20	8	40
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	249	163	970	218	119	1174
Peak Hour Factor	0.9174	0.9174	0.9174	0.9174	0.9174	0.9174
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	68	44	264	59	32	320
Total Analysis Volume [veh/h]	271	178	1057	238	130	1280
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	38	0	36	0	11	47
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	20	0	25	0	0	25
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	85	85	85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	49	49	8	61
g / C, Green / Cycle	0.19	0.19	0.57	0.57	0.10	0.72
(v / s)_i Volume / Saturation Flow Rate	0.16	0.12	0.31	0.16	0.08	0.37
s, saturation flow rate [veh/h]	1714	1530	3427	1530	1714	3427
c, Capacity [veh/h]	324	289	1966	878	165	2458
d1, Uniform Delay [s]	33.25	31.68	11.18	9.16	37.57	5.43
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.74	2.14	1.06	0.76	7.97	0.79
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.62	0.54	0.27	0.79	0.52
d, Delay for Lane Group [s/veh]	38.99	33.81	12.24	9.92	45.54	6.22
Lane Group LOS	D	C	B	A	D	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	5.54	3.31	4.90	1.89	2.87	3.45
50th-Percentile Queue Length [ft/ln]	138.46	82.86	122.51	47.16	71.70	86.18
95th-Percentile Queue Length [veh/ln]	9.40	5.97	8.53	3.40	5.16	6.20
95th-Percentile Queue Length [ft/ln]	234.95	149.15	213.27	84.88	129.06	155.12

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	38.99	33.81	12.24	9.92	45.54	6.22
Movement LOS	D	C	B	A	D	A
d_A, Approach Delay [s/veh]	36.94		11.81		9.85	
Approach LOS	D		B		A	
d_I, Intersection Delay [s/veh]	14.51					
Intersection LOS	B					
Intersection V/C	0.584					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	32.21	0.00	32.21
l_p,int, Pedestrian LOS Score for Intersection	2.335	0.000	3.070
Crosswalk LOS	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	42.50	42.50	42.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.201	5.296
Bicycle LOS	D	F	F

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	18.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.172

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	30	0	344	35	0	360
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	20	0	6	23	0	13
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	0	350	58	0	373
Peak Hour Factor	0.9275	0.9275	0.9275	0.9275	0.9275	0.9275
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	0	94	16	0	101
Total Analysis Volume [veh/h]	54	0	377	63	0	402
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.17	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	18.79	12.92	0.00	0.00	8.10	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.61	0.61	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	15.25	15.25	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.79		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.13					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: Nevada St (NS) at Beaumont Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.052

Intersection Setup

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Base Volume Input [veh/h]	18	20	29	119	195	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	33	14	1	7	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	53	43	120	202	8
Peak Hour Factor	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	15	12	34	57	2
Total Analysis Volume [veh/h]	28	60	49	137	230	9
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.07	0.04	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.49	10.20	7.79	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.43	0.43	0.10	0.10	0.00	0.00
95th-Percentile Queue Length [ft/ln]	10.80	10.80	2.49	2.49	0.00	0.00
d_A, Approach Delay [s/veh]	10.93		2.05		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.62					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: Project Dwy (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		Bermudez St		Bermudez St	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		Bermudez St		Bermudez St	
Base Volume Input [veh/h]	0	0	0	5	1	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	3	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	9	3	5	1	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	1	1	0	0
Total Analysis Volume [veh/h]	0	10	3	5	1	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.59	8.33	7.21	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.69	0.69	0.14	0.14	0.00	0.00
d_A, Approach Delay [s/veh]	8.33		2.70		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.52					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 8: San Timoteo Canyon Rd (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	16.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.025

Intersection Setup

Name	San Timoteo Canyon Rd		San Timoteo Canyon Rd		Project Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	San Timoteo Canyon Rd		San Timoteo Canyon Rd		Project Dwy	
Base Volume Input [veh/h]	0	390	375	0	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	32	26	2	7	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	422	401	2	7	7
Peak Hour Factor	0.9275	0.9275	0.9275	0.9275	0.9275	0.9275
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	114	108	1	2	2
Total Analysis Volume [veh/h]	1	455	432	2	8	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.03	0.01
d_M, Delay for Movement [s/veh]	8.17	0.00	0.00	0.00	16.75	11.08
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.12	0.12
95th-Percentile Queue Length [ft/ln]	0.07	0.00	0.00	0.00	2.96	2.96
d_A, Approach Delay [s/veh]	0.02		0.00		13.91	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.25					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 9: Nevada St (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.013

Intersection Setup

Name	Nevada St		Nevada St		Project Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Nevada St		Project Dwy	
Base Volume Input [veh/h]	0	30	35	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	10	19	4	10	21
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	40	54	4	10	21
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	11	15	1	3	6
Total Analysis Volume [veh/h]	7	43	59	4	11	23
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.02
d_M, Delay for Movement [s/veh]	7.33	0.00	0.00	0.00	9.23	8.70
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.11	0.11
95th-Percentile Queue Length [ft/ln]	0.29	0.29	0.00	0.00	2.74	2.74
d_A, Approach Delay [s/veh]	1.03		0.00		8.87	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.40					
Intersection LOS	A					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: California St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	22.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.702

Intersection Setup

Name	California St		Barton Rd		Barton Rd		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	0	0
Pocket Length [ft]	100.00	100.00	76.00	100.00	178.00	100.00	100.00
Speed [mph]	45.00		55.00		55.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		Yes		

Volumes

Name	California St		Barton Rd		Barton Rd		
Base Volume Input [veh/h]	351	175	342	1217	0	678	341
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	62	39	52	36	0	20	60
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	413	214	394	1253	0	698	401
Peak Hour Factor	0.9334	0.9334	0.9334	0.9334	1.0000	0.9334	0.9334
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	111	57	106	336	0	187	107
Total Analysis Volume [veh/h]	442	229	422	1342	0	748	430
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	3	8	0	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	31	0	31	69	0	38	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	20	0	0	38	0	27	0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	16	27	76	45	45	45
g / C, Green / Cycle	0.16	0.16	0.27	0.76	0.45	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.13	0.08	0.25	0.39	0.00	0.22	0.28
s, saturation flow rate [veh/h]	3329	2708	1714	3427	414	3427	1530
c, Capacity [veh/h]	547	445	459	2590	183	1537	686
d1, Uniform Delay [s]	40.28	38.16	35.59	4.90	0.00	19.46	21.16
k, delay calibration	0.11	0.11	0.20	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.91	0.93	13.45	0.74	0.00	1.11	4.30
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.81	0.52	0.92	0.52	0.00	0.49	0.63
d, Delay for Lane Group [s/veh]	43.19	39.09	49.04	5.64	0.00	20.57	25.46
Lane Group LOS	D	D	D	A	A	C	C
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	5.23	2.52	10.85	3.31	0.00	5.64	7.58
50th-Percentile Queue Length [ft/ln]	130.75	62.89	271.34	82.76	0.00	141.05	189.43
95th-Percentile Queue Length [veh/ln]	8.98	4.53	16.26	5.96	0.00	9.54	12.09
95th-Percentile Queue Length [ft/ln]	224.51	113.21	406.41	148.97	0.00	238.44	302.29

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.19	39.09	49.04	5.64	0.00	20.57	25.46
Movement LOS	D	D	D	A	A	C	C
d_A, Approach Delay [s/veh]	41.79		16.03		22.36		
Approach LOS	D		B		C		
d_I, Intersection Delay [s/veh]	22.87						
Intersection LOS	C						
Intersection V/C	0.702						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	0.00	39.61
l_p,int, Pedestrian LOS Score for Intersection	2.829	0.000	3.355
Crosswalk LOS	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	50.00	50.00	50.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.588	5.104
Bicycle LOS	D	F	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: New Jersey St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	13.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.597

Intersection Setup

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	160.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Base Volume Input [veh/h]	3	0	3	77	0	83	72	1481	4	5	936	27
Base Volume Adjustment Factor	1.0595	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0595	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.06	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.06	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	2	7	9	4	14	8	75	16	11	58	7
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	2	10	86	4	97	80	1556	20	16	994	34
Peak Hour Factor	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433	0.9433
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	3	23	1	26	21	412	5	4	263	9
Total Analysis Volume [veh/h]	13	2	11	91	4	103	85	1650	21	17	1054	36
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	16	63	0	11	58	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	5	0	0	15	0	0	26	0	0	26	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	13	6	72	72	3	68	68
g / C, Green / Cycle	0.13	0.13	0.13	0.06	0.72	0.72	0.03	0.68	0.68
(v / s)_i Volume / Saturation Flow Rate	0.04	0.06	0.07	0.05	0.48	0.01	0.01	0.31	0.02
s, saturation flow rate [veh/h]	733	1423	1539	1714	3427	1530	1714	3427	1530
c, Capacity [veh/h]	151	100	204	109	2472	1104	45	2345	1047
d1, Uniform Delay [s]	38.47	42.45	40.45	46.15	7.49	3.94	47.87	7.20	5.11
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.53	24.17	2.09	11.47	1.45	0.03	5.09	0.63	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.91	0.53	0.78	0.67	0.02	0.38	0.45	0.03
d, Delay for Lane Group [s/veh]	39.00	66.62	42.55	57.62	8.94	3.97	52.96	7.82	5.17
Lane Group LOS	D	E	D	E	A	A	D	A	A
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.59	2.87	2.58	2.31	6.44	0.09	0.46	3.83	0.19
50th-Percentile Queue Length [ft/ln]	14.71	71.81	64.57	57.84	160.91	2.23	11.48	95.70	4.83
95th-Percentile Queue Length [veh/ln]	1.06	5.17	4.65	4.16	10.60	0.16	0.83	6.89	0.35
95th-Percentile Queue Length [ft/ln]	26.48	129.25	116.23	104.12	264.93	4.01	20.67	172.26	8.70

Movement, Approach, & Intersection Results

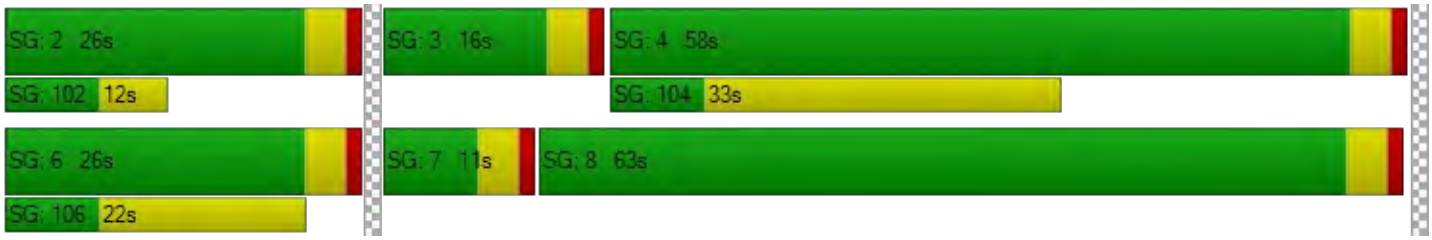
d_M, Delay for Movement [s/veh]	39.00	39.00	39.00	66.62	42.55	42.55	57.62	8.94	3.97	52.96	7.82	5.17
Movement LOS	D	D	D	E	D	D	E	A	A	D	A	A
d_A, Approach Delay [s/veh]	39.00			53.61			11.24			8.43		
Approach LOS	D			D			B			A		
d_I, Intersection Delay [s/veh]	13.18											
Intersection LOS	B											
Intersection V/C	0.597											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	39.61	39.61	39.61
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.032	3.364	3.458
Crosswalk LOS	F	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	440	440	1180	1080
d_b, Bicycle Delay [s]	30.42	30.42	8.41	10.58
l_b,int, Bicycle LOS Score for Intersection	1.603	1.886	3.008	2.473
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: New Jersey St (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.1
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	New Jersey St		New Jersey St		Bermudez St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	New Jersey St		New Jersey St		Bermudez St	
Base Volume Input [veh/h]	4	2	3	3	0	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	12	19	0	6
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	2	15	22	0	8
Peak Hour Factor	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	5	8	0	3
Total Analysis Volume [veh/h]	23	3	21	31	0	11
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.28	0.00	9.06	8.44
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.03	0.03	0.03	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.71	0.71	0.79	0.79
d_A, Approach Delay [s/veh]	0.00		2.94		8.44	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.76					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: San Timoteo Canyon Rd (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	22.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.730

Intersection Setup

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	1	0
Pocket Length [ft]	155.00	100.00	100.00	100.00	200.00	100.00
Speed [mph]	45.00		55.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Base Volume Input [veh/h]	179	137	1309	238	193	791
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	39	18	48	43	19	37
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	218	155	1357	281	212	828
Peak Hour Factor	0.9301	0.9301	0.9301	0.9301	0.9301	0.9301
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	59	42	365	76	57	223
Total Analysis Volume [veh/h]	234	167	1459	302	228	890
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	125
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	51	0	53	0	21	74
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	20	0	25	0	0	25
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	125	125	125	125	125	125
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	20	75	75	19	97
g / C, Green / Cycle	0.16	0.16	0.60	0.60	0.15	0.78
(v / s)_i Volume / Saturation Flow Rate	0.14	0.11	0.43	0.20	0.13	0.26
s, saturation flow rate [veh/h]	1714	1530	3427	1530	1714	3427
c, Capacity [veh/h]	269	240	2047	914	257	2671
d1, Uniform Delay [s]	51.44	49.86	17.64	12.62	52.05	4.11
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.54	3.63	2.15	0.97	9.93	0.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.70	0.71	0.33	0.89	0.33
d, Delay for Lane Group [s/veh]	59.98	53.49	19.78	13.59	61.98	4.45
Lane Group LOS	E	D	B	B	E	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.60	5.06	13.27	4.00	7.53	2.59
50th-Percentile Queue Length [ft/ln]	190.06	126.50	331.69	99.88	188.23	64.73
95th-Percentile Queue Length [veh/ln]	12.12	8.75	19.24	7.19	12.03	4.66
95th-Percentile Queue Length [ft/ln]	303.10	218.72	481.03	179.79	300.73	116.51

Movement, Approach, & Intersection Results

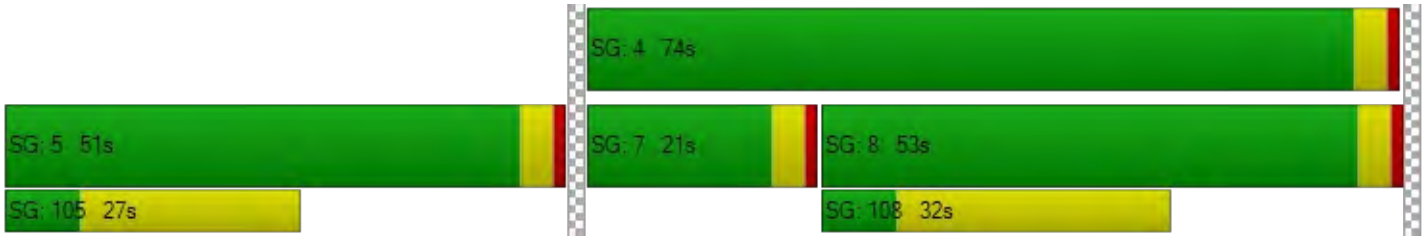
d_M, Delay for Movement [s/veh]	59.98	53.49	19.78	13.59	61.98	4.45
Movement LOS	E	D	B	B	E	A
d_A, Approach Delay [s/veh]	57.28		18.72		16.18	
Approach LOS	E		B		B	
d_I, Intersection Delay [s/veh]	22.57					
Intersection LOS	C					
Intersection V/C	0.730					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	51.98	0.00	51.98
l_p,int, Pedestrian LOS Score for Intersection	2.410	0.000	3.118
Crosswalk LOS	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	62.50	62.50	62.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.585	5.055
Bicycle LOS	D	F	F

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	22.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.273

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	27	4	464	59	1	300
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	47	0	15	42	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	74	4	479	101	1	309
Peak Hour Factor	0.9547	0.9547	0.9547	0.9547	0.9547	0.9547
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	125	26	0	81
Total Analysis Volume [veh/h]	78	4	502	106	1	324
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.27	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	22.30	16.44	0.00	0.00	8.51	0.00
Movement LOS	C	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.12	1.12	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	27.99	27.99	0.00	0.00	0.07	0.07
d_A, Approach Delay [s/veh]	22.01		0.00		0.03	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	1.79					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 6: Nevada St (NS) at Beaumont Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.032

Intersection Setup

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Base Volume Input [veh/h]	11	21	16	155	74	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	39	55	13	11	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	60	71	168	85	14
Peak Hour Factor	0.8704	0.8704	0.8704	0.8704	0.8704	0.8704
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	17	20	48	24	4
Total Analysis Volume [veh/h]	17	69	82	193	98	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.07	0.06	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.35	9.29	7.56	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.35	0.35	0.15	0.15	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.73	8.73	3.76	3.76	0.00	0.00
d_A, Approach Delay [s/veh]	9.89		2.25		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.10					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: Project Dwy (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		Bermudez St		Bermudez St	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		Bermudez St		Bermudez St	
Base Volume Input [veh/h]	0	0	0	5	2	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	12	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	6	12	5	2	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	3	1	1	0
Total Analysis Volume [veh/h]	0	7	13	5	2	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.70	8.33	7.22	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.02	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.49	0.49	0.55	0.55	0.00	0.00
d_A, Approach Delay [s/veh]	8.33		5.22		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.64					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 8: San Timoteo Canyon Rd (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	18.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.019

Intersection Setup

Name	San Timoteo Canyon Rd		San Timoteo Canyon Rd		Project Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	San Timoteo Canyon Rd		San Timoteo Canyon Rd		Project Dwy	
Base Volume Input [veh/h]	0	326	520	1	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	52	55	7	5	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	378	575	8	5	6
Peak Hour Factor	0.9599	0.9599	0.9599	0.9599	0.9599	0.9599
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	98	150	2	1	2
Total Analysis Volume [veh/h]	4	394	599	8	5	6
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	8.68	0.00	0.00	0.00	18.70	12.48
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.00	0.00	0.09	0.09
95th-Percentile Queue Length [ft/ln]	0.31	0.00	0.00	0.00	2.36	2.36
d_A, Approach Delay [s/veh]	0.09		0.00		15.31	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.20					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 9: Nevada St (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name	Nevada St		Nevada St		Project Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Nevada St		Project Dwy	
Base Volume Input [veh/h]	0	28	59	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	40	30	12	7	13
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	68	89	12	7	13
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	18	24	3	2	4
Total Analysis Volume [veh/h]	25	74	97	13	8	14
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	7.45	0.00	0.00	0.00	9.90	8.87
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	0.08	0.08
95th-Percentile Queue Length [ft/ln]	1.17	1.17	0.00	0.00	1.94	1.94
d_A, Approach Delay [s/veh]	1.88		0.00		9.24	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.69					
Intersection LOS	A					

YEAR 2040 WITHOUT PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: California St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	25.6
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.775

Intersection Setup

Name	California St		Barton Rd		Barton Rd		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	0	0
Pocket Length [ft]	100.00	100.00	76.00	100.00	178.00	100.00	100.00
Speed [mph]	45.00		55.00		55.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		Yes		

Volumes

Name	California St		Barton Rd		Barton Rd		
Base Volume Input [veh/h]	566	347	282	815	0	1086	598
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	2	0	0	0	0	0	6
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	568	347	282	815	0	1086	604
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	149	91	74	214	0	286	159
Total Analysis Volume [veh/h]	598	365	297	858	0	1143	636
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	3	8	0	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	31	0	28	69	0	41	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	20	0	0	38	0	27	0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	20	19	72	49	49	49
g / C, Green / Cycle	0.20	0.20	0.19	0.72	0.49	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.17	0.13	0.16	0.24	0.00	0.32	0.39
s, saturation flow rate [veh/h]	3514	2859	1810	3618	654	3618	1615
c, Capacity [veh/h]	718	584	336	2590	320	1774	792
d1, Uniform Delay [s]	38.16	36.30	39.69	5.29	0.00	18.99	21.42
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.62	1.10	7.96	0.34	0.00	1.82	8.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.63	0.89	0.33	0.00	0.64	0.80
d, Delay for Lane Group [s/veh]	40.78	37.41	47.65	5.64	0.00	20.80	29.89
Lane Group LOS	D	D	D	A	A	C	C
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.94	3.97	7.35	2.30	0.00	8.91	12.49
50th-Percentile Queue Length [ft/ln]	173.56	99.23	183.84	57.53	0.00	222.84	312.32
95th-Percentile Queue Length [veh/ln]	11.26	7.14	11.80	4.14	0.00	13.81	18.29
95th-Percentile Queue Length [ft/ln]	281.59	178.61	295.03	103.55	0.00	345.25	457.23

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.78	37.41	47.65	5.64	0.00	20.80	29.89
Movement LOS	D	D	D	A	A	C	C
d_A, Approach Delay [s/veh]	39.50		16.44		24.05		
Approach LOS	D		B		C		
d_I, Intersection Delay [s/veh]	25.61						
Intersection LOS	C						
Intersection V/C	0.775						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	0.00	39.61
l_p,int, Pedestrian LOS Score for Intersection	2.920	0.000	3.425
Crosswalk LOS	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	50.00	50.00	50.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.085	5.600
Bicycle LOS	D	F	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: New Jersey St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	12.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.632

Intersection Setup

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	160.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Base Volume Input [veh/h]	5	0	5	88	4	118	94	1246	7	3	1547	126
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	3	0	0	1	0	0	0	2	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	3	5	88	5	118	94	1246	9	3	1547	126
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	1	23	1	31	25	328	2	1	407	33
Total Analysis Volume [veh/h]	12	3	5	93	5	124	99	1312	9	3	1628	133
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	11	43	0	11	43	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	5	0	0	15	0	0	26	0	0	26	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10	6	58	58	0	52	52
g / C, Green / Cycle	0.12	0.12	0.12	0.08	0.72	0.72	0.01	0.65	0.65
(v / s)_i Volume / Saturation Flow Rate	0.04	0.07	0.08	0.05	0.36	0.01	0.00	0.45	0.08
s, saturation flow rate [veh/h]	486	1430	1624	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	132	92	201	141	2606	1163	11	2345	1047
d1, Uniform Delay [s]	31.36	34.07	33.37	35.98	4.91	3.15	39.60	9.00	5.40
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.52	46.62	3.39	6.17	0.70	0.01	13.10	1.72	0.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	1.01	0.64	0.70	0.50	0.01	0.28	0.69	0.13
d, Delay for Lane Group [s/veh]	31.88	80.68	36.76	42.15	5.61	3.16	52.69	10.73	5.65
Lane Group LOS	C	F	D	D	A	A	D	B	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.36	2.90	2.54	1.97	2.52	0.02	0.09	6.20	0.62
50th-Percentile Queue Length [ft/ln]	8.98	72.58	63.60	49.18	63.04	0.60	2.35	154.88	15.61
95th-Percentile Queue Length [veh/ln]	0.65	5.23	4.58	3.54	4.54	0.04	0.17	10.28	1.12
95th-Percentile Queue Length [ft/ln]	16.16	130.65	114.49	88.53	113.48	1.07	4.22	256.93	28.10

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.88	31.88	31.88	80.68	36.76	36.76	42.15	5.61	3.16	52.69	10.73	5.65
Movement LOS	C	C	C	F	D	D	D	A	A	D	B	A
d_A, Approach Delay [s/veh]	31.88			55.16			8.14			10.41		
Approach LOS	C			E			A			B		
d_I, Intersection Delay [s/veh]	12.50											
Intersection LOS	B											
Intersection V/C	0.632											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.057	3.417	3.530
Crosswalk LOS	F	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	550	550	975	975
d_b, Bicycle Delay [s]	21.03	21.03	10.51	10.51
l_b,int, Bicycle LOS Score for Intersection	1.593	1.926	2.731	3.015
Bicycle LOS	A	A	B	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: New Jersey St (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	New Jersey St		New Jersey St		Bermudez St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	New Jersey St		New Jersey St		Bermudez St	
Base Volume Input [veh/h]	4	0	10	10	0	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	3	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	0	13	10	0	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	3	3	0	3
Total Analysis Volume [veh/h]	4	0	14	11	0	11
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.23	0.00	8.77	8.35
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.03	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.60	0.60	0.77	0.77
d_A, Approach Delay [s/veh]	0.00		4.05		8.35	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.83					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: San Timoteo Canyon Rd (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	17.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.677

Intersection Setup

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	1	0
Pocket Length [ft]	155.00	100.00	100.00	100.00	200.00	100.00
Speed [mph]	45.00		55.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Base Volume Input [veh/h]	370	181	1087	359	161	1323
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	7	0	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	370	188	1087	359	163	1323
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	97	49	286	94	43	348
Total Analysis Volume [veh/h]	389	198	1144	378	172	1393
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	33	0	36	0	11	47
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	20	0	25	0	0	25
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	20	39	39	9	52
g / C, Green / Cycle	0.25	0.25	0.49	0.49	0.12	0.65
(v / s)_i Volume / Saturation Flow Rate	0.21	0.12	0.32	0.23	0.10	0.39
s, saturation flow rate [veh/h]	1810	1615	3618	1615	1810	3618
c, Capacity [veh/h]	447	399	1754	783	214	2363
d1, Uniform Delay [s]	28.92	25.88	15.54	13.87	34.40	7.84
k, delay calibration	0.14	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.69	0.96	1.90	2.13	6.91	1.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.87	0.50	0.65	0.48	0.80	0.59
d, Delay for Lane Group [s/veh]	35.61	26.83	17.44	16.00	41.31	8.92
Lane Group LOS	D	C	B	B	D	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.36	3.08	6.67	4.12	3.46	5.05
50th-Percentile Queue Length [ft/ln]	184.09	77.04	166.69	103.06	86.52	126.18
95th-Percentile Queue Length [veh/ln]	11.81	5.55	10.90	7.42	6.23	8.73
95th-Percentile Queue Length [ft/ln]	295.35	138.67	272.55	185.51	155.74	218.30

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	35.61	26.83	17.44	16.00	41.31	8.92
Movement LOS	D	C	B	B	D	A
d_A, Approach Delay [s/veh]	32.65		17.08		12.48	
Approach LOS	C		B		B	
d_I, Intersection Delay [s/veh]	17.61					
Intersection LOS	B					
Intersection V/C	0.677					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	0.00	29.76
l_p,int, Pedestrian LOS Score for Intersection	2.488	0.000	3.144
Crosswalk LOS	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	40.00	40.00	40.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.388	5.424
Bicycle LOS	D	F	F

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	28.5
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.232

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	44	0	530	59	0	530
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	3	0	0	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	0	533	59	0	531
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	0	140	16	0	140
Total Analysis Volume [veh/h]	46	0	561	62	0	559
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.23	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	28.52	17.45	0.00	0.00	8.62	0.00
Movement LOS	D	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.87	0.87	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	21.64	21.64	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	28.52		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	1.07					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 6: Nevada St (NS) at Beaumont Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.044

Intersection Setup

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Base Volume Input [veh/h]	21	41	43	136	270	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	41	43	136	270	7
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	11	11	36	71	2
Total Analysis Volume [veh/h]	22	43	45	143	284	7
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.06	0.04	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.83	10.39	7.91	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.34	0.34	0.10	0.10	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.38	8.38	2.60	2.60	0.00	0.00
d_A, Approach Delay [s/veh]	11.21		1.89		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	1.99					
Intersection LOS	B					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: California St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	24.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.718

Intersection Setup

Name	California St		Barton Rd		Barton Rd		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	0	0
Pocket Length [ft]	100.00	100.00	76.00	100.00	178.00	100.00	100.00
Speed [mph]	45.00		55.00		55.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		Yes		

Volumes

Name	California St		Barton Rd		Barton Rd		
Base Volume Input [veh/h]	462	236	440	1412	0	874	434
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	462	236	440	1412	0	874	434
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	122	62	116	372	0	230	114
Total Analysis Volume [veh/h]	486	248	463	1486	0	920	457
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	3	8	0	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	31	0	36	74	0	38	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	20	0	0	38	0	27	0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	18	18	29	79	46	46	46
g / C, Green / Cycle	0.17	0.17	0.28	0.76	0.44	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.14	0.09	0.26	0.41	0.00	0.25	0.28
s, saturation flow rate [veh/h]	3514	2859	1810	3618	360	3618	1615
c, Capacity [veh/h]	593	482	501	2732	158	1592	711
d1, Uniform Delay [s]	42.10	39.72	36.90	5.34	0.00	22.06	22.94
k, delay calibration	0.11	0.11	0.20	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.88	0.85	12.92	0.78	0.00	1.53	4.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.82	0.51	0.92	0.54	0.00	0.58	0.64
d, Delay for Lane Group [s/veh]	44.98	40.57	49.81	6.13	0.00	23.59	27.38
Lane Group LOS	D	D	D	A	A	C	C
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.07	2.87	12.42	4.23	0.00	7.93	8.72
50th-Percentile Queue Length [ft/ln]	151.73	71.63	310.45	105.80	0.00	198.26	217.97
95th-Percentile Queue Length [veh/ln]	10.11	5.16	18.20	7.61	0.00	12.55	13.56
95th-Percentile Queue Length [ft/ln]	252.74	128.93	454.94	190.15	0.00	313.72	339.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.98	40.57	49.81	6.13	0.00	23.59	27.38
Movement LOS	D	D	D	A	A	C	C
d_A, Approach Delay [s/veh]	43.49		16.50		24.85		
Approach LOS	D		B		C		
d_I, Intersection Delay [s/veh]	24.21						
Intersection LOS	C						
Intersection V/C	0.718						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	42.08	0.00	42.08
l_p,int, Pedestrian LOS Score for Intersection	2.863	0.000	3.456
Crosswalk LOS	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	52.50	52.50	52.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.740	5.268
Bicycle LOS	D	F	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: New Jersey St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.653

Intersection Setup

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	160.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Base Volume Input [veh/h]	5	0	5	127	0	122	115	1743	4	6	1184	55
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	0	5	127	0	122	115	1743	4	6	1184	55
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	1	33	0	32	30	459	1	2	312	14
Total Analysis Volume [veh/h]	5	0	5	134	0	128	121	1835	4	6	1246	58
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	11	43	0	11	43	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	5	0	0	15	0	0	26	0	0	26	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	14	7	53	53	1	47	47
g / C, Green / Cycle	0.18	0.18	0.18	0.09	0.66	0.66	0.01	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.01	0.09	0.08	0.07	0.51	0.00	0.00	0.34	0.04
s, saturation flow rate [veh/h]	867	1434	1615	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	220	155	284	155	2399	1071	20	2128	950
d1, Uniform Delay [s]	27.55	32.35	29.51	35.82	9.21	4.55	39.26	10.34	7.03
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.08	13.30	1.12	8.13	2.39	0.01	8.19	1.19	0.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.87	0.45	0.78	0.76	0.00	0.30	0.59	0.06
d, Delay for Lane Group [s/veh]	27.64	45.65	30.63	43.96	11.60	4.56	47.45	11.53	7.16
Lane Group LOS	C	D	C	D	B	A	D	B	A
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.16	3.07	2.27	2.46	7.24	0.02	0.15	5.22	0.34
50th-Percentile Queue Length [ft/ln]	4.07	76.71	56.64	61.60	180.95	0.39	3.84	130.50	8.52
95th-Percentile Queue Length [veh/ln]	0.29	5.52	4.08	4.44	11.65	0.03	0.28	8.97	0.61
95th-Percentile Queue Length [ft/ln]	7.32	138.08	101.94	110.89	291.25	0.71	6.91	224.17	15.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.64	27.64	27.64	45.65	30.63	30.63	43.96	11.60	4.56	47.45	11.53	7.16
Movement LOS	C	C	C	D	C	C	D	B	A	D	B	A
d_A, Approach Delay [s/veh]	27.64			38.31			13.58			11.50		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	14.68											
Intersection LOS	B											
Intersection V/C	0.653											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.053	3.447	3.616
Crosswalk LOS	F	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	550	550	975	975
d_b, Bicycle Delay [s]	21.03	21.03	10.51	10.51
l_b,int, Bicycle LOS Score for Intersection	1.576	1.992	3.177	2.640
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: New Jersey St (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	New Jersey St		New Jersey St		Bermudez St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	New Jersey St		New Jersey St		Bermudez St	
Base Volume Input [veh/h]	10	2	9	3	0	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	2	9	3	0	2
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	2	1	0	1
Total Analysis Volume [veh/h]	11	2	9	3	0	2
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.24	0.00	8.68	8.36
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.42	0.42	0.14	0.14
d_A, Approach Delay [s/veh]	0.00		5.43		8.36	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.03					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 4: San Timoteo Canyon Rd (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	30.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.833

Intersection Setup

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	1	0
Pocket Length [ft]	155.00	100.00	100.00	100.00	200.00	100.00
Speed [mph]	45.00		55.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Base Volume Input [veh/h]	372	183	1526	385	230	923
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	372	183	1526	385	230	923
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	98	48	402	101	61	243
Total Analysis Volume [veh/h]	392	193	1606	405	242	972
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	49	0	68	0	13	81
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	20	0	25	0	0	25
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	130	130	130	130	130	130
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	68	68	19	91
g / C, Green / Cycle	0.24	0.24	0.52	0.52	0.15	0.70
(v / s)_i Volume / Saturation Flow Rate	0.22	0.12	0.44	0.25	0.13	0.27
s, saturation flow rate [veh/h]	1810	1615	3618	1615	1810	3618
c, Capacity [veh/h]	427	381	1893	845	268	2540
d1, Uniform Delay [s]	48.37	43.03	26.54	19.70	54.41	7.88
k, delay calibration	0.19	0.11	0.50	0.50	0.14	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.85	1.04	4.96	1.94	13.50	0.44
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.51	0.85	0.48	0.90	0.38
d, Delay for Lane Group [s/veh]	61.22	44.07	31.50	21.64	67.91	8.31
Lane Group LOS	E	D	C	C	E	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	13.53	5.37	20.37	7.59	8.60	4.93
50th-Percentile Queue Length [ft/ln]	338.33	134.24	509.17	189.80	214.95	123.37
95th-Percentile Queue Length [veh/ln]	19.57	9.17	27.77	12.11	13.41	8.58
95th-Percentile Queue Length [ft/ln]	489.16	229.25	694.20	302.77	335.17	214.45

Movement, Approach, & Intersection Results

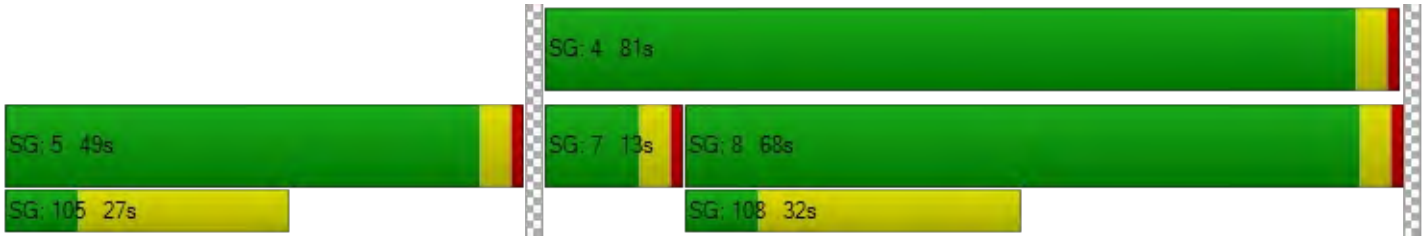
d_M, Delay for Movement [s/veh]	61.22	44.07	31.50	21.64	67.91	8.31
Movement LOS	E	D	C	C	E	A
d_A, Approach Delay [s/veh]	55.56		29.52		20.19	
Approach LOS	E		C		C	
d_I, Intersection Delay [s/veh]	30.55					
Intersection LOS	C					
Intersection V/C	0.833					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	54.47	0.00	54.47
l_p,int, Pedestrian LOS Score for Intersection	2.558	0.000	3.199
Crosswalk LOS	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	65.00	65.00	65.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.791	5.134
Bicycle LOS	D	F	F

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	44.2
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.460

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	72	4	636	98	1	534
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	4	636	98	1	534
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	167	26	0	141
Total Analysis Volume [veh/h]	76	4	669	103	1	562
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.46	0.01	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	44.22	30.78	0.00	0.00	9.05	0.00
Movement LOS	E	D	A	A	A	A
95th-Percentile Queue Length [veh/ln]	2.22	2.22	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	55.48	55.48	0.00	0.00	0.08	0.00
d_A, Approach Delay [s/veh]	43.55		0.00		0.02	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	2.47					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 6: Nevada St (NS) at Beaumont Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.025

Intersection Setup

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Base Volume Input [veh/h]	13	54	59	200	99	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	54	59	200	99	7
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	14	16	53	26	2
Total Analysis Volume [veh/h]	14	57	62	211	104	7
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.06	0.04	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.96	9.19	7.52	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.28	0.28	0.12	0.12	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.98	6.98	3.09	3.09	0.00	0.00
d_A, Approach Delay [s/veh]	9.73		1.71		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.54					
Intersection LOS	B					

YEAR 2040 WITH PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: California St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	26.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.804

Intersection Setup

Name	California St		Barton Rd		Barton Rd		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	0	0
Pocket Length [ft]	100.00	100.00	76.00	100.00	178.00	100.00	100.00
Speed [mph]	45.00		55.00		55.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		Yes		

Volumes

Name	California St		Barton Rd		Barton Rd		
Base Volume Input [veh/h]	566	347	282	815	0	1086	598
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	31	0	0	7	0	7	36
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	597	347	282	822	0	1093	634
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	157	91	74	216	0	288	167
Total Analysis Volume [veh/h]	628	365	297	865	0	1151	667
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	3	8	0	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	31	0	28	69	0	41	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	20	0	0	38	0	27	0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	21	21	19	71	48	48	48
g / C, Green / Cycle	0.21	0.21	0.19	0.71	0.48	0.48	0.48
(v / s)_i Volume / Saturation Flow Rate	0.18	0.13	0.16	0.24	0.00	0.32	0.41
s, saturation flow rate [veh/h]	3514	2859	1810	3618	650	3618	1615
c, Capacity [veh/h]	745	606	335	2561	311	1746	779
d1, Uniform Delay [s]	37.80	35.59	39.70	5.61	0.00	19.64	22.81
k, delay calibration	0.11	0.11	0.12	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.69	0.96	8.44	0.36	0.00	1.97	11.63
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.60	0.89	0.34	0.00	0.66	0.86
d, Delay for Lane Group [s/veh]	40.49	36.55	48.14	5.97	0.00	21.61	34.44
Lane Group LOS	D	D	D	A	A	C	C
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	7.28	3.91	7.40	2.45	0.00	9.21	14.28
50th-Percentile Queue Length [ft/ln]	182.10	97.87	184.97	61.33	0.00	230.33	356.94
95th-Percentile Queue Length [veh/ln]	11.71	7.05	11.86	4.42	0.00	14.19	20.47
95th-Percentile Queue Length [ft/ln]	292.75	176.17	296.50	110.39	0.00	354.78	511.86

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	40.49	36.55	48.14	5.97	0.00	21.61	34.44
Movement LOS	D	D	D	A	A	C	C
d_A, Approach Delay [s/veh]	39.04		16.74		26.31		
Approach LOS	D		B		C		
d_I, Intersection Delay [s/veh]	26.70						
Intersection LOS	C						
Intersection V/C	0.804						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	0.00	39.61
l_p,int, Pedestrian LOS Score for Intersection	2.935	0.000	3.444
Crosswalk LOS	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	50.00	50.00	50.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.091	5.632
Bicycle LOS	D	F	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: New Jersey St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	13.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.639

Intersection Setup

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	160.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Base Volume Input [veh/h]	5	0	5	88	4	118	94	1246	7	3	1547	126
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	21	3	21	0	1	0	0	22	17	21	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	3	26	88	5	118	94	1268	24	24	1569	126
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	1	7	23	1	31	25	334	6	6	413	33
Total Analysis Volume [veh/h]	27	3	27	93	5	124	99	1335	25	25	1652	133
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	11	43	0	11	43	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	5	0	0	15	0	0	26	0	0	26	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	6	53	53	3	50	50
g / C, Green / Cycle	0.14	0.14	0.14	0.08	0.67	0.67	0.04	0.63	0.63
(v / s)_i Volume / Saturation Flow Rate	0.08	0.07	0.08	0.05	0.37	0.02	0.01	0.46	0.08
s, saturation flow rate [veh/h]	746	1401	1624	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	174	100	234	141	2418	1079	68	2272	1014
d1, Uniform Delay [s]	30.84	33.31	31.83	35.98	6.97	4.47	37.58	10.19	6.04
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.09	27.83	2.02	6.21	0.91	0.04	3.31	2.08	0.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.33	0.93	0.55	0.70	0.55	0.02	0.37	0.73	0.13
d, Delay for Lane Group [s/veh]	31.93	61.14	33.85	42.19	7.89	4.51	40.89	12.27	6.30
Lane Group LOS	C	E	C	D	A	A	D	B	A
Critical Lane Group	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.02	2.50	2.42	1.97	3.87	0.10	0.50	7.14	0.69
50th-Percentile Queue Length [ft/ln]	25.38	62.49	60.53	49.21	96.69	2.43	12.57	178.50	17.34
95th-Percentile Queue Length [veh/ln]	1.83	4.50	4.36	3.54	6.96	0.18	0.90	11.52	1.25
95th-Percentile Queue Length [ft/ln]	45.69	112.48	108.96	88.58	174.04	4.38	22.62	288.05	31.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	31.93	31.93	31.93	61.14	33.85	33.85	42.19	7.89	4.51	40.89	12.27	6.30
Movement LOS	C	C	C	E	C	C	D	A	A	D	B	A
d_A, Approach Delay [s/veh]	31.93			45.28			10.16			12.23		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	13.76											
Intersection LOS	B											
Intersection V/C	0.639											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.057	3.459	3.553
Crosswalk LOS	F	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	550	550	975	975
d_b, Bicycle Delay [s]	21.03	21.03	10.51	10.51
l_b,int, Bicycle LOS Score for Intersection	1.654	1.926	2.763	3.053
Bicycle LOS	A	A	C	C

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: New Jersey St (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	New Jersey St		New Jersey St		Bermudez St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	New Jersey St		New Jersey St		Bermudez St	
Base Volume Input [veh/h]	4	0	10	10	0	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	36	0	3	36	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	40	0	13	46	0	10
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	3	12	0	3
Total Analysis Volume [veh/h]	42	0	14	48	0	11
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.30	0.00	9.15	8.52
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.02	0.03	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.62	0.62	0.81	0.81
d_A, Approach Delay [s/veh]	0.00		1.65		8.52	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.70					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: San Timoteo Canyon Rd (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	18.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.698

Intersection Setup

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	1	0
Pocket Length [ft]	155.00	100.00	100.00	100.00	200.00	100.00
Speed [mph]	45.00		55.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Base Volume Input [veh/h]	370	181	1087	359	161	1323
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	7	21	22	2	21
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	392	188	1108	381	163	1344
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	103	49	292	100	43	354
Total Analysis Volume [veh/h]	413	198	1166	401	172	1415
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	33	0	36	0	11	47
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	20	0	25	0	0	25
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	21	21	38	38	9	51
g / C, Green / Cycle	0.26	0.26	0.47	0.47	0.12	0.64
(v / s)_i Volume / Saturation Flow Rate	0.23	0.12	0.32	0.25	0.10	0.39
s, saturation flow rate [veh/h]	1810	1615	3618	1615	1810	3618
c, Capacity [veh/h]	470	420	1709	763	214	2316
d1, Uniform Delay [s]	28.43	25.01	16.45	14.83	34.42	8.51
k, delay calibration	0.16	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	7.93	0.83	2.23	2.58	6.98	1.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.47	0.68	0.53	0.81	0.61
d, Delay for Lane Group [s/veh]	36.35	25.83	18.68	17.41	41.41	9.72
Lane Group LOS	D	C	B	B	D	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.94	3.01	7.15	4.65	3.47	5.53
50th-Percentile Queue Length [ft/ln]	198.47	75.19	178.74	116.32	86.64	138.31
95th-Percentile Queue Length [veh/ln]	12.56	5.41	11.53	8.19	6.24	9.39
95th-Percentile Queue Length [ft/ln]	313.99	135.34	288.37	204.76	155.95	234.74

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.35	25.83	18.68	17.41	41.41	9.72
Movement LOS	D	C	B	B	D	A
d_A, Approach Delay [s/veh]	32.94		18.35		13.15	
Approach LOS	C		B		B	
d_I, Intersection Delay [s/veh]	18.53					
Intersection LOS	B					
Intersection V/C	0.698					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.76	0.00	29.76
l_p,int, Pedestrian LOS Score for Intersection	2.511	0.000	3.156
Crosswalk LOS	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	40.00	40.00	40.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.425	5.442
Bicycle LOS	D	F	F

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	33.2
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.353

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	44	0	530	59	0	530
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	0	3	22	0	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	66	0	533	81	0	531
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	0	140	21	0	140
Total Analysis Volume [veh/h]	69	0	561	85	0	559
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.35	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	33.15	21.90	0.00	0.00	8.66	0.00
Movement LOS	D	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.50	1.50	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	37.40	37.40	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	33.15		0.00		0.00	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	1.80					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 6: Nevada St (NS) at Beaumont Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.083

Intersection Setup

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Base Volume Input [veh/h]	21	41	43	136	270	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	14	28	28	0	0	14
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	35	69	71	136	270	21
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	18	19	36	71	6
Total Analysis Volume [veh/h]	37	73	75	143	284	22
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.10	0.06	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	14.40	11.11	8.02	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.65	0.65	0.18	0.18	0.00	0.00
95th-Percentile Queue Length [ft/ln]	16.37	16.37	4.45	4.45	0.00	0.00
d_A, Approach Delay [s/veh]	12.22		2.76		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	3.07					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: Project Dwy (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		Bermudez St		Bermudez St	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		Bermudez St		Bermudez St	
Base Volume Input [veh/h]	0	0	0	10	1	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	3	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	9	3	10	1	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	1	3	0	0
Total Analysis Volume [veh/h]	0	9	3	11	1	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.62	8.33	7.21	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.62	0.62	0.14	0.14	0.00	0.00
d_A, Approach Delay [s/veh]	8.33		1.54		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.03					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 8: San Timoteo Canyon Rd (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	24.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.037

Intersection Setup

Name	San Timoteo Canyon Rd		San Timoteo Canyon Rd		Project Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	San Timoteo Canyon Rd		San Timoteo Canyon Rd		Project Dwy	
Base Volume Input [veh/h]	0	560	590	0	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	22	22	2	7	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	582	612	2	7	7
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	153	161	1	2	2
Total Analysis Volume [veh/h]	1	613	644	2	7	7
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.04	0.01
d_M, Delay for Movement [s/veh]	8.80	0.00	0.00	0.00	24.70	13.29
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.16	0.16
95th-Percentile Queue Length [ft/ln]	0.08	0.00	0.00	0.00	4.06	4.06
d_A, Approach Delay [s/veh]	0.01		0.00		18.99	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.22					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 9: Nevada St (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.030

Intersection Setup

Name	Nevada St		Nevada St		Project Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Nevada St		Project Dwy	
Base Volume Input [veh/h]	0	44	59	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	42	0	0	22	22	42
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	44	59	22	22	42
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	12	16	6	6	11
Total Analysis Volume [veh/h]	44	46	62	23	23	44
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.03	0.04
d_M, Delay for Movement [s/veh]	7.43	0.00	0.00	0.00	10.04	8.94
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.08	0.08	0.00	0.00	0.24	0.24
95th-Percentile Queue Length [ft/ln]	2.12	2.12	0.00	0.00	6.02	6.02
d_A, Approach Delay [s/veh]	3.63		0.00		9.32	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.93					
Intersection LOS	B					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: California St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	24.7
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

Intersection Setup

Name	California St		Barton Rd		Barton Rd		
Approach	Southbound		Eastbound		Westbound		
Lane Configuration							
Turning Movement	Left	Right	Left	Thru	U-turn	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	0	1	0	0
Pocket Length [ft]	100.00	100.00	76.00	100.00	178.00	100.00	100.00
Speed [mph]	45.00		55.00		55.00		
Grade [%]	0.00		0.00		0.00		
Curb Present	No		No		No		
Crosswalk	Yes		No		Yes		

Volumes

Name	California St		Barton Rd		Barton Rd		
Base Volume Input [veh/h]	462	236	440	1412	0	874	434
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	0	0	4	0	2	13
Diverted Trips [veh/h]	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	485	236	440	1416	0	876	447
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	1.0000	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	128	62	116	373	0	231	118
Total Analysis Volume [veh/h]	511	248	463	1491	0	922	471
Presence of On-Street Parking	No	No	No	No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0		
v_di, Inbound Pedestrian Volume crossing m	0		0		0		
v_co, Outbound Pedestrian Volume crossing	0		0		0		
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0		
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0		
Bicycle Volume [bicycles/h]	0		0		0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Permissive	Permissive	Permissive
Signal group	1	0	3	8	0	4	0
Auxiliary Signal Groups							
Lead / Lag	Lead	-	Lead	-	-	-	-
Minimum Green [s]	7	0	7	7	0	7	0
Maximum Green [s]	30	0	30	30	0	30	0
Amber [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	0.0	1.0	1.0	0.0	1.0	0.0
Split [s]	31	0	36	74	0	38	0
Vehicle Extension [s]	3.0	0.0	3.0	3.0	0.0	3.0	0.0
Walk [s]	7	0	0	7	0	7	0
Pedestrian Clearance [s]	20	0	0	38	0	27	0
Rest In Walk	No			No		No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	0.0	2.0	0.0
Minimum Recall	No		No	No		No	
Maximum Recall	No		No	No		No	
Pedestrian Recall	No		No	No		No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	L	C	L	C	R
C, Cycle Length [s]	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	2.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	18	18	29	79	45	45	45
g / C, Green / Cycle	0.18	0.18	0.28	0.75	0.43	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.15	0.09	0.26	0.41	0.00	0.25	0.29
s, saturation flow rate [veh/h]	3514	2859	1810	3618	359	3618	1615
c, Capacity [veh/h]	618	502	501	2706	153	1568	700
d1, Uniform Delay [s]	41.73	39.05	36.91	5.67	0.00	22.62	23.80
k, delay calibration	0.11	0.11	0.21	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.91	0.75	13.39	0.81	0.00	1.63	5.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.83	0.49	0.92	0.55	0.00	0.59	0.67
d, Delay for Lane Group [s/veh]	44.64	39.81	50.30	6.48	0.00	24.25	28.92
Lane Group LOS	D	D	D	A	A	C	C
Critical Lane Group	Yes	No	Yes	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	6.37	2.83	12.49	4.52	0.00	8.09	9.31
50th-Percentile Queue Length [ft/ln]	159.28	70.82	312.13	113.08	0.00	202.29	232.77
95th-Percentile Queue Length [veh/ln]	10.51	5.10	18.28	8.01	0.00	12.76	14.31
95th-Percentile Queue Length [ft/ln]	262.78	127.47	457.00	200.28	0.00	318.92	357.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.64	39.81	50.30	6.48	0.00	24.25	28.92
Movement LOS	D	D	D	A	A	C	C
d_A, Approach Delay [s/veh]	43.06		16.86		25.83		
Approach LOS	D		B		C		
d_I, Intersection Delay [s/veh]	24.75						
Intersection LOS	C						
Intersection V/C	0.735						

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	42.08	0.00	42.08
l_p,int, Pedestrian LOS Score for Intersection	2.873	0.000	3.468
Crosswalk LOS	C	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	52.50	52.50	52.50
l_b,int, Bicycle LOS Score for Intersection	4.132	5.744	5.282
Bicycle LOS	D	F	F

Sequence

Ring 1	1	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 2: New Jersey St (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	16.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.667

Intersection Setup

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	1	0	0	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	75.00	100.00	100.00	160.00	100.00	100.00	96.00	100.00	100.00
Speed [mph]	25.00			25.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			Yes			Yes			Yes		

Volumes

Name	New Jersey St			New Jersey St			Barton Rd			Barton Rd		
Base Volume Input [veh/h]	5	0	5	127	0	122	115	1743	4	6	1184	55
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	2	7	0	4	0	0	12	16	15	7	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	2	12	127	4	122	115	1755	20	21	1191	55
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	3	33	1	32	30	462	5	6	313	14
Total Analysis Volume [veh/h]	15	2	13	134	4	128	121	1847	21	22	1254	58
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal group	0	2	0	0	6	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	7	0	0	7	0	7	7	0	7	7	0
Maximum Green [s]	0	30	0	0	30	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	26	0	0	26	0	11	43	0	11	43	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	5	0	0	15	0	0	26	0	0	26	0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	C	R	L	C	R
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	14	7	51	51	3	47	47
g / C, Green / Cycle	0.18	0.18	0.18	0.09	0.64	0.64	0.03	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate	0.04	0.09	0.08	0.07	0.51	0.01	0.01	0.35	0.04
s, saturation flow rate [veh/h]	848	1421	1622	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	218	149	288	156	2310	1031	62	2123	948
d1, Uniform Delay [s]	27.80	32.37	29.47	35.82	10.67	5.29	37.79	10.46	7.09
k, delay calibration	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.28	17.04	1.14	8.10	3.00	0.04	3.47	1.22	0.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	0.90	0.46	0.78	0.80	0.02	0.36	0.59	0.06
d, Delay for Lane Group [s/veh]	28.08	49.41	30.61	43.92	13.68	5.33	41.26	11.67	7.21
Lane Group LOS	C	D	C	D	B	A	D	B	A
Critical Lane Group	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.49	3.20	2.33	2.46	8.58	0.10	0.45	5.34	0.34
50th-Percentile Queue Length [ft/ln]	12.33	80.11	58.31	61.57	214.40	2.41	11.20	133.44	8.62
95th-Percentile Queue Length [veh/ln]	0.89	5.77	4.20	4.43	13.38	0.17	0.81	9.13	0.62
95th-Percentile Queue Length [ft/ln]	22.20	144.21	104.96	110.83	334.47	4.33	20.16	228.16	15.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	28.08	28.08	28.08	49.41	30.61	30.61	43.92	13.68	5.33	41.26	11.67	7.21
Movement LOS	C	C	C	D	C	C	D	B	A	D	B	A
d_A, Approach Delay [s/veh]	28.08			40.08			15.43			11.97		
Approach LOS	C			D			B			B		
d_I, Intersection Delay [s/veh]	16.07											
Intersection LOS	B											
Intersection V/C	0.667											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	29.76	29.76	29.76
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.055	3.473	3.628
Crosswalk LOS	F	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	550	550	975	975
d_b, Bicycle Delay [s]	21.03	21.03	10.51	10.51
l_b,int, Bicycle LOS Score for Intersection	1.609	1.999	3.201	2.660
Bicycle LOS	A	A	C	B

Sequence

Ring 1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 3: New Jersey St (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.1
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	New Jersey St		New Jersey St		Bermudez St	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	New Jersey St		New Jersey St		Bermudez St	
Base Volume Input [veh/h]	10	2	9	3	0	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	12	0	16	19	0	6
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	2	25	22	0	8
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	7	6	0	2
Total Analysis Volume [veh/h]	23	2	26	23	0	8
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	0.00	0.00	7.28	0.00	9.07	8.43
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.05	0.05	0.02	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	1.19	1.19	0.57	0.57
d_A, Approach Delay [s/veh]	0.00		3.86		8.43	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.13					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: San Timoteo Canyon Rd (NS) at Barton Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	31.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.841

Intersection Setup

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	1	0
Pocket Length [ft]	155.00	100.00	100.00	100.00	200.00	100.00
Speed [mph]	45.00		55.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		No		Yes	

Volumes

Name	San Timoteo Canyon Rd		Barton Rd		Barton Rd	
Base Volume Input [veh/h]	372	183	1526	385	230	923
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	5	7	12	3	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	379	188	1533	397	233	938
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	100	49	403	104	61	247
Total Analysis Volume [veh/h]	399	198	1614	418	245	987
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Permissive	Permissive	Protected	Permissive
Signal group	5	0	8	0	7	4
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	7	0	7	7
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	49	0	68	0	13	81
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	7	0	7	0	0	7
Pedestrian Clearance [s]	20	0	25	0	0	25
Rest In Walk	No		No			No
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	130	130	130	130	130	130
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31	31	67	67	19	91
g / C, Green / Cycle	0.24	0.24	0.52	0.52	0.15	0.70
(v / s)_i Volume / Saturation Flow Rate	0.22	0.12	0.45	0.26	0.14	0.27
s, saturation flow rate [veh/h]	1810	1615	3618	1615	1810	3618
c, Capacity [veh/h]	434	388	1874	836	271	2526
d1, Uniform Delay [s]	48.11	42.74	27.25	20.36	54.32	8.13
k, delay calibration	0.19	0.11	0.50	0.50	0.15	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	13.27	1.04	5.49	2.13	14.03	0.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.51	0.86	0.50	0.91	0.39
d, Delay for Lane Group [s/veh]	61.38	43.78	32.74	22.49	68.35	8.59
Lane Group LOS	E	D	C	C	E	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	13.81	5.50	20.94	8.05	8.74	5.14
50th-Percentile Queue Length [ft/ln]	345.29	137.38	523.61	201.21	218.53	128.43
95th-Percentile Queue Length [veh/ln]	19.91	9.34	28.45	12.70	13.59	8.85
95th-Percentile Queue Length [ft/ln]	497.66	233.49	711.25	317.53	339.75	221.36

Movement, Approach, & Intersection Results

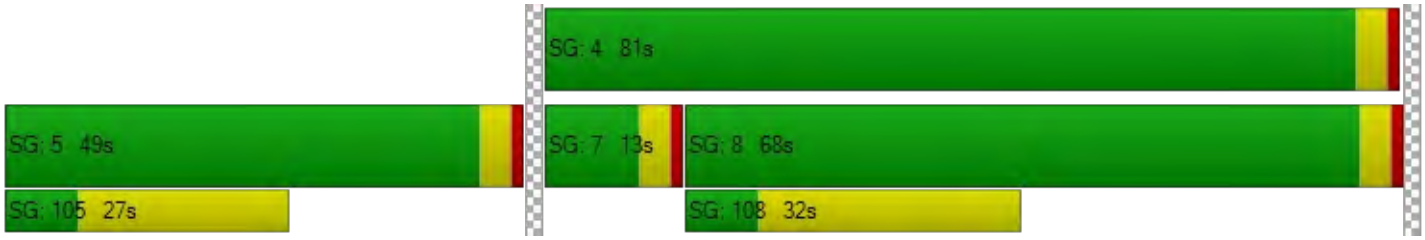
d_M, Delay for Movement [s/veh]	61.38	43.78	32.74	22.49	68.35	8.59
Movement LOS	E	D	C	C	E	A
d_A, Approach Delay [s/veh]	55.54		30.63		20.47	
Approach LOS	E		C		C	
d_I, Intersection Delay [s/veh]	31.24					
Intersection LOS	C					
Intersection V/C	0.841					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	54.47	0.00	54.47
l_p,int, Pedestrian LOS Score for Intersection	2.572	0.000	3.208
Crosswalk LOS	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	65.00	65.00	65.00
l_b,int, Bicycle LOS Score for Intersection	4.132	5.809	5.149
Bicycle LOS	D	F	F

Sequence

Ring 1	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	48.6
Analysis Method:	HCM 6th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.512

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	72	4	636	98	1	534
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	0	2	12	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	79	4	638	110	1	538
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	1	168	29	0	142
Total Analysis Volume [veh/h]	83	4	672	116	1	566
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.51	0.01	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	48.60	34.84	0.00	0.00	9.08	0.00
Movement LOS	E	D	A	A	A	A
95th-Percentile Queue Length [veh/ln]	2.59	2.59	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	64.86	64.86	0.00	0.00	0.09	0.00
d_A, Approach Delay [s/veh]	47.96		0.00		0.02	
Approach LOS	E		A		A	
d_I, Intersection Delay [s/veh]	2.90					
Intersection LOS	E					

Intersection Level Of Service Report
Intersection 6: Nevada St (NS) at Beaumont Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.035

Intersection Setup

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Beaumont Ave		Beaumont Ave	
Base Volume Input [veh/h]	13	54	59	200	99	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	9	15	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	63	74	200	99	15
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	17	19	53	26	4
Total Analysis Volume [veh/h]	18	66	78	211	104	16
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.07	0.05	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.50	9.33	7.57	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.35	0.35	0.16	0.16	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.73	8.73	3.94	3.94	0.00	0.00
d_A, Approach Delay [s/veh]	10.01		2.04		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.90					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 7: Project Dwy (NS) at Bermudez St (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.000

Intersection Setup

Name	Project Dwy		Bermudez St		Bermudez St	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Dwy		Bermudez St		Bermudez St	
Base Volume Input [veh/h]	0	0	0	11	2	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	16	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	6	16	11	2	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	4	3	1	0
Total Analysis Volume [veh/h]	0	6	17	12	2	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop		Free		Free	
Flared Lane	No					
Storage Area [veh]	0		0		0	
Two-Stage Gap Acceptance	No					
Number of Storage Spaces in Median	0		0		0	

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.78	8.33	7.23	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.03	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.42	0.42	0.74	0.74	0.00	0.00
d_A, Approach Delay [s/veh]	8.33		4.24		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.67					
Intersection LOS	A					

Intersection Level Of Service Report

Intersection 8: San Timoteo Canyon Rd (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	27.1
Analysis Method:	HCM 6th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.030

Intersection Setup

Name	San Timoteo Canyon Rd		San Timoteo Canyon Rd		Project Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	San Timoteo Canyon Rd		San Timoteo Canyon Rd		Project Dwy	
Base Volume Input [veh/h]	0	560	690	1	0	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	7	12	3	5	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	567	702	4	5	6
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	149	185	1	1	2
Total Analysis Volume [veh/h]	4	597	739	4	5	6
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.03	0.01
d_M, Delay for Movement [s/veh]	9.14	0.00	0.00	0.00	27.13	14.25
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.00	0.00	0.14	0.14
95th-Percentile Queue Length [ft/ln]	0.34	0.00	0.00	0.00	3.45	3.45
d_A, Approach Delay [s/veh]	0.06		0.00		20.10	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.19					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 9: Nevada St (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.009

Intersection Setup

Name	Nevada St		Nevada St		Project Dwy	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Nevada St		Nevada St		Project Dwy	
Base Volume Input [veh/h]	0	73	98	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	23	0	0	12	7	13
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	73	98	12	7	13
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	19	26	3	2	3
Total Analysis Volume [veh/h]	24	77	103	13	7	14
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	7.46	0.00	0.00	0.00	9.93	8.89
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	0.07	0.07
95th-Percentile Queue Length [ft/ln]	1.18	1.18	0.00	0.00	1.85	1.85
d_A, Approach Delay [s/veh]	1.77		0.00		9.24	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.57					
Intersection LOS	A					

WITH IMPROVEMENTS

AM PEAK HOUR

Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	27.5
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.565

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	44	0	530	59	0	530
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	0	530	59	0	530
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	0	139	16	0	139
Total Analysis Volume [veh/h]	46	0	558	62	0	558
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	4
Auxiliary Signal Groups						1,4
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	23	0	50	73	32	32
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	12	0	0	21	21	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	R
C, Cycle Length [s]	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	33	36	73	24	64
g / C, Green / Cycle	0.31	0.34	0.69	0.23	0.61
(v / s)_i Volume / Saturation Flow Rate	0.02	0.31	0.03	0.00	0.35
s, saturation flow rate [veh/h]	1900	1810	1900	1810	1615
c, Capacity [veh/h]	595	616	1314	420	986
d1, Uniform Delay [s]	25.38	33.04	5.16	0.00	12.16
k, delay calibration	0.50	0.24	0.50	0.11	0.31
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.25	10.98	0.07	0.00	1.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.91	0.05	0.00	0.57
d, Delay for Lane Group [s/veh]	25.63	44.02	5.23	0.00	13.61
Lane Group LOS	C	D	A	A	B
Critical Lane Group	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.82	14.52	0.37	0.00	7.04
50th-Percentile Queue Length [ft/ln]	20.45	363.11	9.32	0.00	176.02
95th-Percentile Queue Length [veh/ln]	1.47	20.77	0.67	0.00	11.39
95th-Percentile Queue Length [ft/ln]	36.82	519.37	16.78	0.00	284.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.63	25.63	44.02	5.23	0.00	13.61
Movement LOS	C	C	D	A	A	B
d_A, Approach Delay [s/veh]	25.63		40.14		13.61	
Approach LOS	C		D		B	
d_I, Intersection Delay [s/veh]	27.50					
Intersection LOS	C					
Intersection V/C	0.565					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08
l_p,int, Pedestrian LOS Score for Intersection	1.801	2.586	2.492
Crosswalk LOS	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	52.50	52.50	52.50
l_b,int, Bicycle LOS Score for Intersection	4.208	5.155	4.132
Bicycle LOS	D	F	D

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PM PEAK HOUR

Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	29.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.660

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	72	4	636	98	1	534
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	72	4	636	98	1	534
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	1	167	26	0	141
Total Analysis Volume [veh/h]	76	4	669	103	1	562
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	4
Auxiliary Signal Groups						1,4
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	23	0	65	88	32	32
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	12	0	0	21	21	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	R
C, Cycle Length [s]	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	35	48	87	25	77
g / C, Green / Cycle	0.29	0.40	0.72	0.21	0.64
(v / s)_i Volume / Saturation Flow Rate	0.04	0.37	0.05	0.00	0.35
s, saturation flow rate [veh/h]	1883	1810	1900	1810	1615
c, Capacity [veh/h]	545	721	1370	384	1040
d1, Uniform Delay [s]	31.62	34.47	4.94	37.24	11.67
k, delay calibration	0.50	0.27	0.50	0.11	0.24
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.57	12.51	0.11	0.00	0.95
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.15	0.93	0.08	0.00	0.54
d, Delay for Lane Group [s/veh]	32.19	46.98	5.04	37.24	12.63
Lane Group LOS	C	D	A	D	B
Critical Lane Group	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.77	20.01	0.66	0.02	7.44
50th-Percentile Queue Length [ft/ln]	44.16	500.14	16.61	0.57	185.90
95th-Percentile Queue Length [veh/ln]	3.18	27.34	1.20	0.04	11.91
95th-Percentile Queue Length [ft/ln]	79.48	683.52	29.90	1.03	297.71

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.19	32.19	46.98	5.04	37.24	12.63
Movement LOS	C	C	D	A	D	B
d_A, Approach Delay [s/veh]	32.19		41.38		12.67	
Approach LOS	C		D		B	
d_I, Intersection Delay [s/veh]	29.44					
Intersection LOS	C					
Intersection V/C	0.660					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.863	2.660	2.557
Crosswalk LOS	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	60.00	60.00	60.00
l_b,int, Bicycle LOS Score for Intersection	4.264	5.406	4.132
Bicycle LOS	E	F	D

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

AM PEAK HOUR

Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	27.4
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.572

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	44	0	530	59	0	530
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	0	3	4	0	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	0	533	63	0	531
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	0	140	17	0	140
Total Analysis Volume [veh/h]	57	0	561	66	0	559
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	2.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	4
Auxiliary Signal Groups						1,4
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	23	0	50	73	32	32
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	12	0	0	21	21	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	R
C, Cycle Length [s]	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	33	36	73	24	64
g / C, Green / Cycle	0.31	0.34	0.69	0.23	0.61
(v / s)_i Volume / Saturation Flow Rate	0.03	0.31	0.03	0.00	0.35
s, saturation flow rate [veh/h]	1900	1810	1900	1810	1615
c, Capacity [veh/h]	592	619	1314	420	989
d1, Uniform Delay [s]	25.64	32.96	5.17	0.00	12.08
k, delay calibration	0.50	0.25	0.50	0.11	0.31
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.32	11.10	0.07	0.00	1.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.10	0.91	0.05	0.00	0.57
d, Delay for Lane Group [s/veh]	25.96	44.06	5.24	0.00	13.54
Lane Group LOS	C	D	A	A	B
Critical Lane Group	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.02	14.61	0.40	0.00	7.02
50th-Percentile Queue Length [ft/ln]	25.58	365.37	9.94	0.00	175.60
95th-Percentile Queue Length [veh/ln]	1.84	20.88	0.72	0.00	11.37
95th-Percentile Queue Length [ft/ln]	46.05	522.11	17.89	0.00	284.26

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.96	25.96	44.06	5.24	0.00	13.54
Movement LOS	C	C	D	A	A	B
d_A, Approach Delay [s/veh]	25.96		39.97		13.54	
Approach LOS	C		D		B	
d_I, Intersection Delay [s/veh]	27.44					
Intersection LOS	C					
Intersection V/C	0.572					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08
l_p,int, Pedestrian LOS Score for Intersection	1.812	2.593	2.493
Crosswalk LOS	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	52.50	52.50	52.50
l_b,int, Bicycle LOS Score for Intersection	4.226	5.167	4.132
Bicycle LOS	D	F	D

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

PM PEAK HOUR

Intersection Level Of Service Report

Intersection 5: San Timoteo Cyn Rd/NV St (NS) at San Timoteo Canyon Rd (EW)

Control Type:	Signalized	Delay (sec / veh):	29.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.666

Intersection Setup

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	45.00		45.00		45.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Nevada St		San Timoteo Canyon Rd		San Timoteo Canyon Rd	
Base Volume Input [veh/h]	72	4	636	98	1	534
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Rate	1.00	1.00	1.00	1.00	1.00	1.00
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	7	0	2	12	0	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right-Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	79	4	638	110	1	538
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	1	168	29	0	142
Total Analysis Volume [veh/h]	83	4	672	116	1	566
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	LeadGreen
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Permissive	Permissive	Protected	Permissive	Split	Overlap
Signal group	2	0	1	6	7	4
Auxiliary Signal Groups						1,4
Lead / Lag	-	-	Lead	-	Lead	-
Minimum Green [s]	7	0	7	7	7	7
Maximum Green [s]	30	0	30	30	30	30
Amber [s]	3.0	0.0	3.0	3.0	3.0	3.0
All red [s]	1.0	0.0	1.0	1.0	1.0	1.0
Split [s]	23	0	65	88	32	32
Vehicle Extension [s]	3.0	0.0	3.0	3.0	3.0	3.0
Walk [s]	7	0	0	7	7	0
Pedestrian Clearance [s]	12	0	0	21	21	0
Rest In Walk	No			No	No	
I1, Start-Up Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	2.0	2.0	2.0
Minimum Recall	No		No	No	No	No
Maximum Recall	No		No	No	No	No
Pedestrian Recall	No		No	No	No	No
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	C	L	C	L	R
C, Cycle Length [s]	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	0.00
g_i, Effective Green Time [s]	34	48	86	26	78
g / C, Green / Cycle	0.29	0.40	0.72	0.21	0.65
(v / s)_i Volume / Saturation Flow Rate	0.05	0.37	0.06	0.00	0.35
s, saturation flow rate [veh/h]	1885	1810	1900	1810	1615
c, Capacity [veh/h]	541	724	1369	385	1044
d1, Uniform Delay [s]	31.96	34.36	5.00	37.17	11.56
k, delay calibration	0.50	0.27	0.50	0.11	0.24
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.64	12.59	0.12	0.00	0.97
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.93	0.08	0.00	0.54
d, Delay for Lane Group [s/veh]	32.60	46.95	5.12	37.17	12.53
Lane Group LOS	C	D	A	D	B
Critical Lane Group	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.94	20.10	0.76	0.02	7.45
50th-Percentile Queue Length [ft/ln]	48.44	502.42	18.92	0.57	186.29
95th-Percentile Queue Length [veh/ln]	3.49	27.45	1.36	0.04	11.93
95th-Percentile Queue Length [ft/ln]	87.18	686.22	34.06	1.03	298.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	32.60	32.60	46.95	5.12	37.17	12.53
Movement LOS	C	C	D	A	D	B
d_A, Approach Delay [s/veh]	32.60		40.80		12.58	
Approach LOS	C		D		B	
d_I, Intersection Delay [s/veh]	29.20					
Intersection LOS	C					
Intersection V/C	0.666					

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersection	1.878	2.670	2.560
Crosswalk LOS	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	0	0
d_b, Bicycle Delay [s]	60.00	60.00	60.00
l_b,int, Bicycle LOS Score for Intersection	4.276	5.433	4.132
Bicycle LOS	E	F	D

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ATTACHMENT H

TRAFFIC SIGNAL WARRANT WORKSHEETS

Figure E-1

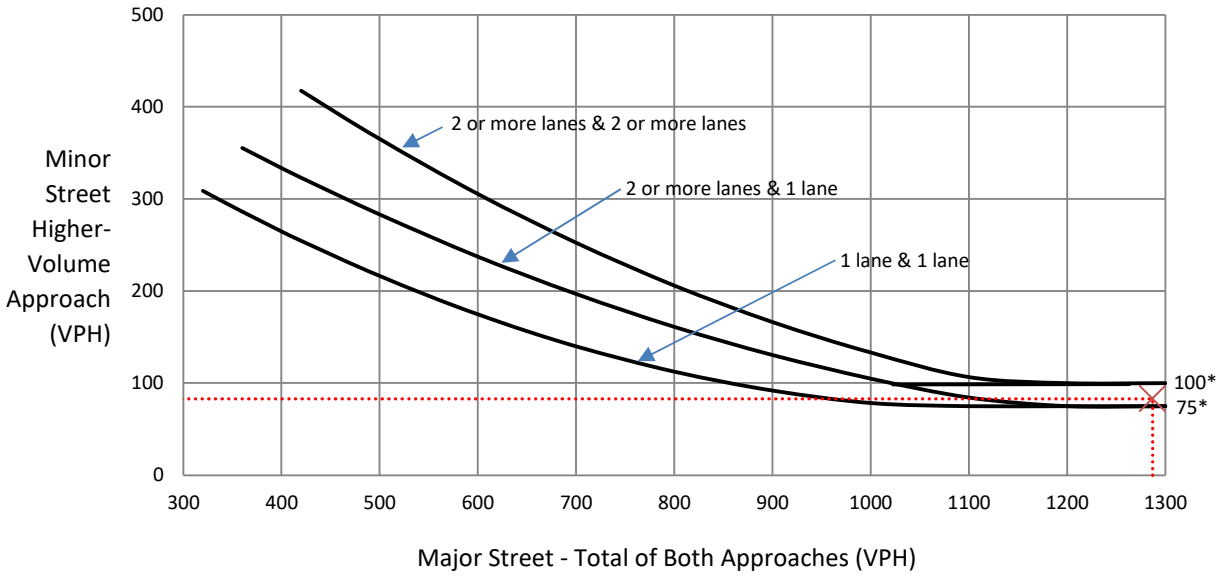
San Timoteo Cyn Rd/NV Street (NS) / San Timoteo Cyn Rd (EW) - #9
Year 2040 With Project
PM

Major Street: San Timoteo Cyn Rd Volume: 1287

Minor Street: San Timoteo Cyn Rd/NV Street Volume: 83

Warrant 3, Peak Hour Vehicular Volume (70% Factor)

(Community less than 10,000 population or above 40 mph on the major street)



TRAFFIC SIGNAL WARRANT IS SATISFIED

*Note: 100 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor street approach with one lane.

GANDDINI GROUP, INC.
550 Parkcenter Drive, Suite 202, Santa Ana, CA 92705
714.795.3100 | www.ganddini.com