





# Chick-Fil-A Silver Creek & Capitol Expressway Development

**Local Transportation Analysis** 

Prepared for:

**Chick-Fil-A West Region Development & Construction** 

February 28, 2022













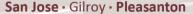
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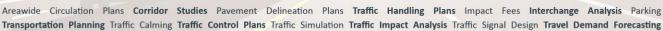
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# **Executive Summary**

This report presents the results of the local transportation analysis (LTA) conducted for the proposed Chick-Fil-A at the southwest corner of Silver Creek Road and Lexann Avenue in San Jose, California (see Figure 1). The project is located within the Evergreen East Hills Development Policy (EEHDP) area and the E. Capitol Expressway/Silver Creek Road Urban Village. This study was conducted for the purpose of identifying the potential transportation impacts related to the project. Access to the surface parking lot and drive-through window would be provided via the existing driveways on Lexann Avenue, Silver Creek Road, and Capitol Expressway. A new driveway along Silver Creek Road would be provided just south of the building.

The potential impacts of the project were evaluated in accordance with the standards and methodologies set forth by the City of San Jose. Based on the City of San Jose's Transportation Analysis Policy (Council Policy 5-1) and the Transportation Analysis Handbook 2018, the transportation analysis report for the project includes a CEQA transportation analysis and a local transportation analysis (LTA). The LTA includes an evaluation of site access, on-site circulation, parking, and effects to transit, bicycle, and pedestrian access.

## **Local Transportation Analysis**

### **Project Trip Generation**

Based on the ITE trip rates and applicable reductions and credits, the project would generate 1,102 daily trips, 34 AM peak hour trips (17 inbound and 17 outbound), and 136 PM peak hour trips (68 inbound and 68 outbound).

## **Intersection Level of Service Analysis**

The results of the intersection level of service analysis show that the Capitol Expressway/Aborn Road intersection would operate at unacceptable levels of service during both the AM and PM peak hours under existing and background conditions. The Capitol Expressway/Silver Creek Road intersection would operate at an unacceptable level of service during the AM peak hour under existing and background conditions. Under project conditions, the intersections would continue to operate at unacceptable levels of service, but the project traffic would not cause any adverse effects at the intersections. The other study intersections would operate an acceptable level of service with and without the project.

The Capitol Expressway/Silver Creek Road intersection is expected to operate at an unacceptable level of service (LOS F) during the AM peak hour. However, the existing storage lanes for northbound left turn traffic are adequate for existing, background, and background plus project volumes. The project will be required to provide a study after one year of operations to determine whether it is creating any



operational problems on the surrounding transportation network and to determine whether any improvements are necessary.

Table ES 1
Intersection Level of Service Summary

					Exist	ing			Вас	kground		
							No Project					
Inte	rsection	LOS Standard	Peak Hour	Count Date	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Critical Delay (sec)	Incr. in Critical V/C
1	Capitol Expy and Aborn Rd	D	AM PM	10/27/15 10/03/12	57.7 71.4	E+ E	69.1 87.5		69.3 88.2	E F	0.3 1.2	0.001 0.003
2	King Rd/Silver Creek Rd and Aborn Rd	D	AM PM	10/20/15 03/09/11	33.8 36.7	C- D+	34.6 37.7		34.6 37.8	C- D+	0.0 0.0	0.001 0.004
3	Silver Creek Rd and Lexann Ave	D	AM PM	10/29/15 10/29/15	20.6 37.2	C+ D+	20.0 36.5	-	20.9 38.0	C+ D+	1.1 1.5	0.012 0.045
4	Capitol Expy and Silver Creek Rd*	E	AM PM	10/27/15 11/08/18	<b>200.9</b> 51.8	<b>F</b> D-	<b>219.8</b> 56.1	F E+	<b>220.6</b> 55.7	<b>F</b> E+	2.0 -0.8	0.004 0.000

#### Note:

#### **Intersection Queuing Analysis**

#### Westbound Left Turn on Aborn Road at King Road/Silver Creek Road

The westbound left-turn lane has approximately 175 feet (7 vehicles) of storage without interfering with other movements. The project would cause the 95th percentile queue to extend past the storage lane by four vehicles during the PM peak hour. The westbound left turn pocket could be extended by modifying the landscaped median to accommodate the extra four vehicles. However, because of the low westbound through traffic in the PM peak hour, the 95th percentile queue briefly extending to the through lane is not expected to adversely affect the westbound traffic flow.

#### Eastbound Movements on Lexann Avenue at Silver Creek Road

The eastbound movement lane has approximately 300 feet (12 vehicles) of storage between the intersection and the first driveway along eastbound Lexann Avenue. The project would cause the 95th percentile queue to extend past the driveway by six vehicles during the PM peak hour. However, it is expected that vehicles would leave a space at the driveway for inbound and outbound vehicles. Also, there is a second driveway to the shopping center 300 feet from Silver Creek Road that would not be blocked by gueues. Project traffic would have the option of using this second driveway.

## **Drive-Through Analysis**

The project would comply with Council Policy 6-10 with adequate primary parking lot access through Silver Creek Road, adequate drive through stacking lanes with a total capacity of 21 vehicles, and safe pedestrian crossings. In addition, the project would not adversely affect the nearby intersections of Silver Creek Road/Lexann Avenue and Capitol Expressway/Silver Creek Road. These intersections are within 300 feet of driveway entrances for the project.

#### **Drive-Through Operations**

The project proposes two drive through stacking lanes. The lane farther away from the building's pickup window would serve as a bypass lane, which would allow guests with smaller orders to be served their food and exit the lane prior to reaching the pick-up window if the vehicle at the pickup window has a large order that takes additional time to complete.



<sup>\*</sup> Denotes the CMP designated Intersection **Bold** indicates a substandard level of service

If the drive-through queue were to extend past the stacking lane, team members would assist with face-to-face ordering via an iPad ordering system. Team members would also be present within the parking lot to direct the queue from the driveway entrances. The system would be used during the peak hours and any additional necessary time. The system would allow team members to take orders, receive payment, and assist with traffic movement within the parking lot. The queue would be monitored to ensure that the drive-through does not block vehicle circulation within the parking lot. Appendix F describes the full operations management plan by Chick-Fil-A.

#### **Other Transportation Issues**

Hexagon conducted a site plan review, queuing analysis, pedestrian, bicycle and transit facility analysis and parking analysis for the proposed project. Generally, the project would not have an adverse effect on the existing transit services, pedestrian facilities, or bicycle facilities in the study area. Hexagon provides the following recommendations for the project:

#### Recommendations

- The project should provide enhanced shelters for the Route 71 bus stop located along the
  project frontage on Silver Creek Road, south of Lexann Avenue. The project should coordinate
  with VTA to provide any necessary improvements to the bus stop to meet the current VTA
  shelter and bus stop standards.
- The project should provide an in-lieu contribution for the future Class IV protected bike lane along the project frontage on Silver Creek Road, per the City's 2025 Better Bike Plan.



## 1.

# Introduction

This report presents the results of the local transportation analysis (LTA) conducted for the proposed Chick-Fil-A at the southwest corner of Silver Creek Road and Lexann Avenue in San Jose, California (see Figure 1). The project is located within the Evergreen East Hills Development Policy (EEHDP) area and the E. Capitol Expressway/Silver Creek Road Urban Village. This study was conducted for the purpose of identifying the potential transportation impacts related to the project. Access to the surface parking lot and drive-through window would be provided via the existing driveways on Lexann Avenue, Silver Creek Road, and Capitol Expressway. A new driveway along Silver Creek Road would be provided just south of the building.

The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook*, adopted in April 2018. Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the *Transportation Analysis Handbook*, the TA report for the project includes a California Environmental Quality Act (CEQA) transportation analysis and a local transportation analysis (LTA).

## **Project Description**

The project proposes to construct a 3,565 square-foot (s.f) restaurant with drive through facilities in a plaza and demolish an existing 5,485 s.f. retail building within the plaza to create a parking lot. Access to the site would be provided by existing driveways on Silver Creek Road, Lexann Avenue, and Capitol Expressway (see Figure 2).

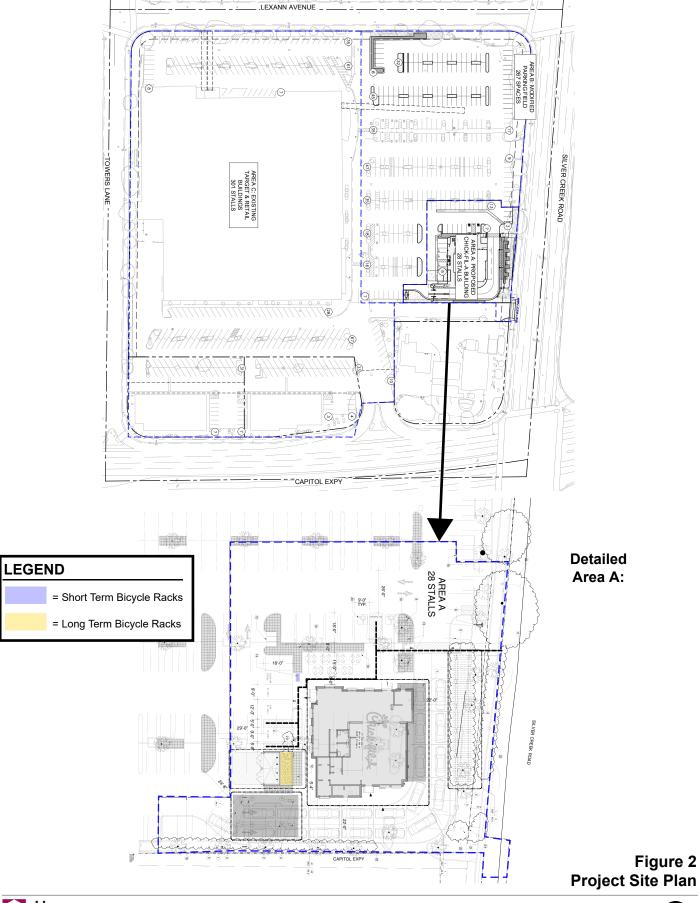




Figure 1 Site Location and Study Intersections











## E. Capitol Expressway/Silver Creek Road Urban Village

The project site is located within the E. Capitol Expressway/Silver Creek Road Urban Village per the *Envision San José 2040 General Plan*, although an Urban Village Plan has not yet been developed for the area. The E. Capitol Expressway/Silver Creek Road Urban Village boundaries include Silver Creek Road (south of Capitol Expressway), Capitol Expressway, Aborn Road, and Towers Lane. Urban Villages are designated to provide a vibrant and inviting mixed-use settings to attract pedestrians, bicyclists, and transit users of all ages and to promote higher density housing growth in combination with a significant amount of job growth, thus supporting the General Plan's environmental goals. The urban village strategy fosters:

- Engagement of village area residents in the urban village planning process:
- Mixed residential and employment activities that are attractive to an innovative workforce:
- Revitalization of underutilized properties that have access to existing infrastructure;
- · Densities that support transit use, bicycling, and walking; and
- High-quality urban design.

## **Evergreen East Hills Development Policy**

The Evergreen East Hills Development Policy (EEHDP) is the revision to the Evergreen Development Policy and was adopted in 2008. The policy refers to the area bounded by US 101, Story Road, and the Hellyer Avenue/US 101 interchange. The EEHDP would provide traffic allocation for the future development of the following uses:

- A pool of 500 residential dwelling units
- 500,000 s.f. of commercial retail space
- 75,000 s.f. of office space

The project is located within the Arcadia Property (81-acre site located just south of the Eastridge Shopping Mall, on the west side of Capitol Expressway), which has an allocated 344,000 s.f. of commercial retail space. However, the project would be replacing an existing 5,485 s.f. commercial building with a 3,565 s.f. restaurant, which results in a net decrease in square footage, and would be within the allocated square footage for commercial retail space. Thus, the project would not be required to pay a Traffic Impact Fee (TIF).

## **Transportation Policies**

## **Council Policy 5-1**

Council Policy 5-1 establishes the thresholds for transportation impacts under CEQA based on vehicle miles traveled (VMT). All new projects are required to analyze transportation impacts using the VMT metric and conform to Council Policy 5-1.

Council Policy 5-1 aligns with the Envision San Jose 2040 General Plan which seeks to focus new development growth within Planned Growth Areas, bringing together office, residential, and service land uses to internalize trips and reduce VMT. VMT-based policies support dense, mixed-use, infill projects as established in the General Plan's Planned Growth Areas.

## **Council Policy 6-10**

The City of San Jose created Council Policy 6-10 for developments with drive-through facilities within the City. The intent of this policy is to provide guidelines for the development of establishments with drive-through facilities within the City. All establishments with drive through facilities must meet the



criteria stated in the policy in order to be approved for a conditional use permit or planned development permit.

## **CEQA Transportation Analysis Scope and Methodology**

The City of San Jose's Transportation Analysis Policy establishes procedures for determining project impacts on VMT based on project description, characteristics, and/or location. VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT measures the full distance of personal motorized vehicle-trips with one end within the project. Typically, development projects that are farther from other, complementary land uses (such as a business park far from housing) and in areas without transit or active transportation infrastructure (bike lanes, sidewalks, etc.) generate more driving than development near complementary land uses with more robust transportation options. Therefore, developments located in a central business district with high density and diversity of complementary land uses and frequent transit services are expected to internalize trips and generate shorter and fewer vehicle trips than developments located in a suburban area with low density of residential developments and no transit service in the project vicinity.

#### **Screening Criteria for VMT Analysis**

The City of San Jose's *Transportation Analysis Handbook* includes screening criteria for projects that are expected to result in less-than-significant VMT impacts based on the project description, characteristics and/or location. Projects that meet the screening criteria do not require a CEQA transportation analysis but may be required to provide an LTA. The type of development projects that may meet screening criteria include small infill projects, local-serving retail, or local-serving public facilities.

The proposed project, a fast-food restaurant with drive through facilities, meets the screening criteria set forth the *Transportation Analysis Handbook* for retail uses. Retail projects of 100,000 s.f. or less are considered local-serving projects and result in less-than-significant VMT impacts according to the screening criteria. The project would build 3,565 s.f. of restaurant space. Thus, the project is expected to have a less-than-significant VMT impact.

## **Local Transportation Analysis Scope**

The LTA evaluates potential adverse operational effects that may arise due to a new development on transportation system, site access, circulation, and other safety-related elements in the proximate area of the project.

As part of the LTA, a project is required to conduct an intersection operations analysis if the project is expected to add 10 or more vehicle trips per hour per lane to any signalized intersection that is currently operating at LOS D or worse, a CMP intersection outside of the City's infill opportunity zones, or outside the City limits with potential to be affected by the project. Based on these criteria, as outlined in the City's *Transportation Analysis Handbook*, a list of study intersections was developed. Note that intersections that do not meet all the criteria may be added to the list of study intersections at the City's discretion. The LTA comprises an analysis of AM and PM peak-hour traffic conditions for the following signalized intersections (see Figure 1).

- 1. Capitol Expressway and Aborn Road
- 2. Silver Creek Road and Aborn Road
- 3. Silver Creek Road and Lexann Avenue
- 4. Capitol Expressway and Silver Creek Road (CMP)



The Capitol Expressway and Silver Creek Road intersection is designated as a CMP intersection located in the City of San Jose. The VTA administers the CMP and monitors the PM peak-hour traffic conditions of CMP intersections.

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours. The weekday AM peak hour is generally between 7:00 and 9:00 AM and the weekday PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on roadways.

Traffic conditions typically are evaluated for the following scenarios: Existing, Background, and Background Plus Project conditions.

- Existing Conditions. Existing AM and PM peak-hour traffic volumes were obtained from the City of San Jose and the 2018 CMP monitoring report. Due to Covid-19, the new traffic counts collected in September 2021 showed a 40 percent decrease in traffic volumes. Therefore, a growth rate of one percent per year was applied to the traffic counts that are more than two years old to estimate the traffic volumes for existing conditions. The study intersections were evaluated with a level of service analysis using TRAFFIX software in accordance with the 2000 Highway Capacity Manual methodology.
- Background Conditions. Background traffic volumes were estimated by adding to existing
  peak-hour volumes the projected volumes from approved but not yet completed developments.
  The added traffic from approved but not yet completed developments was provided by the City
  of San Jose in the form of the Approved Trips Inventory (ATI). Approved developments in the
  study area were included under background conditions. Background conditions represent the
  baseline conditions to which project conditions are compared for the purpose of determining
  potential adverse operational effects of the project.
- **Background Plus Project Conditions.** Background plus project traffic volumes were estimated by adding to background traffic volumes the additional traffic generated by the project. Background plus project conditions were evaluated relative to background conditions to determine potential adverse project effects.

The LTA includes a review of the drive-through facilities, intersection queuing, site access and on-site circulation, an evaluation of potential effects to transit, bicycle, and pedestrian facilities, and parking.

## **Intersection Operations Analysis Methodology**

This section presents the methods used to determine the traffic conditions at the study intersections and the potential adverse operational effects due to the project. It includes descriptions of the data requirements, the analysis methodologies, the applicable intersection level of service standards, and the criteria used to determine adverse effects on intersection operations.

#### **Data Requirements**

The data required for the analysis were obtained from the City of San Jose, the 2018 CMP Annual Monitoring Report, and Google Earth. The following data were collected from these sources:

- existing traffic volumes
- lane configurations
- signal timing and phasing
- approved project trips



#### Level of Service Analysis Methodologies and Standards

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The analysis methods are described below.

#### **Signalized Intersections**

The City of San Jose evaluates level of service at signalized intersections based on the 2000 *Highway Capacity Manual (HCM)* level of service methodology using TRAFFIX software. Since TRAFFIX is the level of service analysis software for the CMP signalized intersections, the City of San Jose employs the CMP defaults values for the analysis parameters. This HCM method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. The correlation between average delay and level of service is shown in Table 1.

Signalized study intersections are subject to the local municipalities' level of service standards. The City of San Jose has established LOS D as the minimum acceptable intersection operations standard for all signalized intersections unless superseded by an Area Development Policy. The study intersections are located in San Jose.

TRAFFIX software was used to analyze intersection operations and adverse intersection effects based on the increases in critical-movement delay and the volume-to-capacity ratio (v/c) between no-project conditions and project conditions. The thresholds for adverse intersection effects are described under Adverse Intersection Operations Effects below.

#### City of San Jose Definition of Adverse Intersection Operations Effects

According to the City of San Jose's *Transportation Analysis Handbook*, an adverse effect on intersection operations would occur if for either peak hour:

- The level of service at the intersection degrades from an acceptable level (LOS D or better) under background conditions to an unacceptable level under background plus project conditions, or
- 2. The level of service at the intersection is an unacceptable level (LOS E or F) under background conditions and the addition of project trips cause both the critical-movement delay at the intersection to increase by four (4) or more seconds *and* the volume-to-capacity ratio (v/c) to increase by one percent (.01) or more.

The exception to criterion 2 above applies when the addition of project traffic reduces the amount of average control delay for critical movements, i.e., the change in average control delay for critical movements are negative. In this case, the threshold is when the project increases the critical v/c value by 0.01 or more.

Adverse effects at signalized intersections can be addressed by one of the following approaches:

- Construct improvements to the subject intersection or other roadway segments of the Citywide transportation system to increase overall capacity, or
- Reduce project-generated vehicle trips (e.g., implement a "trip cap") to eliminate the adverse
  operational effects and restore intersection operations to background conditions. The extent of
  trip reduction should be set at a level that is realistically attainable through proven methods of
  reducing trips.



Table 1
Signalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
А	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B+ B B-	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 12.0 12.1 to 18.0 18.1 to 20.0
C+ C C-	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping.	20.1 to 23.0 23.1 to 32.0 32.1 to 35.0
D+ D D-	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lenghts, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 39.0 39.1 to 51.0 51.1 to 55.0
E+ E E-	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 60.0 60.1 to 75.0 75.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	greater than 80.0
	ansportation Research Board, 2000 Highway Capacity Manual (Washington, D.C. FA Traffic Level of Service Analysis Guidelines (June 2003), Table 2.	, 2000) p10-16.

## **Intersection Vehicle Queuing Analysis**

The analysis of intersection operations is typically supplemented with a vehicle queuing analysis at study intersections where the project would add a substantial number of vehicle trips to the left-turn movements or stop-controlled approaches. The analysis provides a basis for estimating future left-turn pocket storage requirements at the study intersections and is presented for informational purposes only, since the City of San Jose has not defined a policy related to queuing. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

$$P(x=n) = \frac{\lambda^n e^{-(\lambda)}}{n!}$$



#### Where:

P(x=n) = probability of "n" vehicles in queue per lane

n = number of vehicles in the queue per lane

 $\lambda$  = average # of vehicles in the queue per lane (vehicles per hr per lane/signal cycles per hr)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles for a particular left-turn movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the left-turn movement. This analysis thus provides a basis for estimating future turn pocket storage requirements at intersections.

For signalized intersections, the 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles. Or a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Thus, turn pocket storage designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time for a signalized movement.

## **Report Organization**

This report has a total of four chapters. Chapter 2 describes existing transportation conditions including the existing roadway network, transit service, and bicycle and pedestrian facilities. Chapter 3 describes the local transportation analysis including the methods used to estimate project-generated traffic and an analysis of other transportation issues including drive-through facilities, intersection queuing, site access and circulation, parking, and potential project effects on transit services, and bicycle and pedestrian facilities. Chapter 4 presents the conclusions of the local transportation analysis.



## 2.

# **Existing Transportation Conditions**

This chapter describes the existing conditions of the transportation system within the study area of the project. It describes transportation facilities in the vicinity of the project site, including the roadway network, transit service, and pedestrian and bicycle facilities.

## **Existing Roadway Network**

Regional access to the project site is provided via US 101. Local access to the site is provided Silver Creek Road, King Road, Aborn Road, Capitol Expressway, and Lexann Avenue. These facilities are described below. For the purposes of this study, US 101, Silver Creek Road, and all parallel streets are considered to run north-south, and cross streets, such as Capitol Expressway, are considered to run east-west.

**US 101** is a ten-lane freeway with four mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction in the vicinity of the site. It extends north through San Francisco and south through Gilroy. Regional access to the project site is provided via its interchange with Capitol Expressway.

Silver Creek Road is a four-lane, north-south city connector that transitions from King Road at Aborn Road in the north to Yerba Buena Road in the south. South of Yerba Buena Road, Silver Creek Road is a two-lane local street that ends at the Silver Creek Linear Park parking lot. Silver Creek Road has a posted speed limit of 35 miles per hour (mph). It has a raised, landscaped median with left-turn pockets provided at intersections. On-street parking is permitted along the west side of the street between Lexann Avenue and Aborn Road. Parking is prohibited along the remainder of the street. Sidewalks exist along both sides of Silver Creek Road near the project site. Bike lanes exist north of Yerba Buena Road. Silver Creek Road provides direct access to the project. The driveway is limited to right turns only for inbound and outbound traffic due to the median.

*King Road* is a four-lane, north-south city connector with a center two-way left turn lane. It transitions from Lundy Avenue at Commodore Drive in the north and transitions to Silver Creek Road at Aborn Drive in the south. King Road has a posted speed limit of 35 mph. On-street parking is permitted along the west side of the street near the project vicinity for a short segment. On-street parking is generally prohibited along the rest of the street. Sidewalks and bike lanes exist along both sides of the street near the project site. King Road provides direct access to the project through its transition into Silver Creek Road.

**Capitol Expressway** is an east-west, eight-lane expressway with a raised median. It transitions from Hillsdale Avenue at Almaden Expressway in the west and extends eastward where it transitions into Great America Parkway at Montague Expressway. HOV lanes are present on Capitol Expressway north of Silver Creek Road. Capitol Expressway has a posted speed limit of 45 mph. On-street parking is not



permitted. There are sidewalks along both sides on most segments and crosswalks at signalized intersections. Bike lanes exist along both sides of Capitol Expressway just north of the Silver Creek Plaza to Senter Road. Access to the project site is provided via its intersection with Silver Creek Road and an existing driveway to the existing plaza. The driveway is limited to right turns only for inbound and outbound traffic due to the median on the expressway.

Aborn Road is a four lane, east-west city connector between Silver Creek Road and Gurdwara Avenue. West of Silver Creek Road, Aborn Road is a two-lane local street. Aborn Road has a posted speed limit of 40 mph east of Silver Creek Road. West of Silver Creek Road, it has a posted speed limit of 25 mph. West of Silver Creek Road, Aborn Road has a raised, landscaped median with left-turn pockets provided at intersections. On-street parking is prohibited along most of the street. West of Silver Creek Road, parking is not allowed between 10 PM and 6 AM. The north side has a one hour parking restriction. Sidewalks exist along both sides of Aborn Road near the project site. Bike lanes exist west of Silver Creek Road. Aborn Road provides access to the project site via its intersections with Silver Creek Road and Capitol Expressway.

**Lexann Avenue** is a two-lane east-west local street that begins at the Silver Creek Plaza driveway along Silver Creek Road in the east and transitions into Oakbridge Drive at Towers Lane in the west. It has a speed limit of 25 mph. On-street parking is allowed along the north side of the street. Sidewalks exist along both sides of the street. Lexann Avenue provides direct access to the project site.

## **Existing Pedestrian, Bicycle and Transit Facilities**

San Jose desires to provide a safe, efficient, economically, and environmentally sensitive transportation system that balances the needs of bicyclists, pedestrians, and public transit riders with those of cars and trucks. The existing bicycle, pedestrian and transit facilities in the study area are described below.

#### **Existing Pedestrian Facilities**

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. In the vicinity of the project site, sidewalks exist along both sides of Lexann Avenue, Silver Creek Road, and Capitol Expressway. Crosswalks with pedestrian signal heads and push buttons are provided on the intersections along Silver Creek Road and Capitol Expressway within walking distance of the site. Within a typical walking distance (a half mile or 10 minutes), continuous pedestrian facilities are present between the site and the surrounding land uses, including the bus stops in the area.

#### **Existing Bicycle Facilities**

The bicycle facilities that exist within the vicinity of the project site (see Figure 3) include bike paths (Class I bike path) and striped bike lanes (Class II bikeway). Bike paths are shared between pedestrians and bicyclists and separated from motor vehicle traffic. Bike lanes are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage.

In the immediate vicinity of the project site, there is a Class I bike path along Barberry Lane between Dina Lane and Corda Drive. There are Class II bike lanes on Capitol Expressway, King Road/Silver Creek Road, Aborn Road east of King Road/Silver Creek Road. Of these bike lanes, the bike lanes on King Road/Silver Creek Road and Aborn Drive are buffered. Buffered bike lanes separate the bike lane from the vehicle travel lane with a designated buffer space.

As part of the San Jose Better Bike Plan 2025, existing striped bike lanes on several streets in the project area are proposed to be reconstructed as protected bike lanes (Class IV bikeway). Protected bike lanes are protected by physical barriers such as flexible bollards, raised curb, parking, or planter boxes. The proposed streets include Capitol Expressway, King Road/Silver Creek Road, and Aborn Road (east of Silver Creek Road). The plan also proposes bicycle boulevards along Aborn Road (west



of Silver Creek Road) and Stallion Way. Bicycle boulevards are streets with low vehicular traffic volumes and speed, designed to give bicycles travel priority.

#### **Existing Transit Services**

Existing transit services in the project vicinity are provided by the VTA (see Figure 4 and Table 3). In the project proximity, the VTA operates local bus routes 42, 70, and 71, as described below. The bus stop closest to the project site is located on Silver Creek Road along the project frontage and serves Routes 70 and 71.

Table 2
Existing Transit Services

Bus Route	Route Description	Closest Stop and Distance to Project Site	Weekday Hours of Operation <sup>1</sup>	Headway (minutes) <sup>1</sup>
Local Route 42	, ,	Silver Creek Road south of Capitol Expressway, 820 feet	6:00 AM - 7:00 PM	60
Local Route 70	Milpitas BART - Capitol Station via Jackson	Silver Creek Road, along the project frontage, 330 feet	5:10 AM - 12:10 AM (next day)	13-16
Local Route 71	Milpitas BART - Capitol Station	Silver Creek Road, along the project frontage, 330 feet	5:25 AM - 10:30 PM	20

<sup>1.</sup> Approximate weekday operation hours and headways during peak commute periods in the project area, as of October 2021.





Figure 3 Existing Bicycle Facilities







Figure 4 Existing Transit Services





## 3.

# **Local Transportation Analysis**

This chapter describes the local transportation analysis (LTA) including the method by which project traffic is estimated, site access and on-site circulation review, effects on bicycle, pedestrian and transit facilities, and parking supply.

## **Intersection Operations Analysis**

#### **Project Trip Estimates**

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, the directions to and from which the project trips would travel are estimated. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

#### **Trip Generation**

Trips generated by new development proposed within the City of San Jose typically are typically estimated using trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th Edition. However, the trips generated by the project were estimated using rates observed at the Chick-Fil-A restaurant with drive through windows at 1161 Blossom Hill Road in San Jose, CA on September 30, 2021. Daily trip generation was estimated based on the observed peak-hour volumes and the ratio of peak-hour trips to daily trips for "Fast-Food Restaurant with Drive-Through Window" (Land Use 934) published in the ITE Trip Generation Manual.

#### **Trip Adjustments and Reductions**

Trip generation for restaurant and retail uses are typically adjusted to account for pass-by trips. Pass-by trips are trips that would already be on the adjacent roadways (and are therefore already counted in the existing traffic) but would turn into the site while passing by. Pass-by trips are therefore excluded from the traffic projections (although pass-by traffic is accounted for at the site entrances). Pass-by trip reductions of 49% and 50% were applied to the AM and PM peak hour trips, respectively, based on the ITE *Trip Generation Handbook*, 3rd Edition.

Because the existing commercial building on the project site is currently vacant, the project received no trip credits for the existing commercial space.



#### **Net Project Trips**

Based on the ITE trip rates and applicable reductions and credits, the project would generate 1,102 daily trips, 34 AM peak hour trips (17 inbound and 17 outbound), and 136 PM peak hour trips (68 inbound and 68 outbound) (see Table 3).

Table 3
Project Trip Generation Estimates

		Daily		AM Peak Hour Daily Trip			PM Peak Hour Trip			r	
Land Use	Size	Rate	Trip	Rate	ln	Out	Total	Rate	ln	Out	Total
Proposed Land Uses											
Chick-Fil-A 1	3.565 ksf	618.233	2,204	18.916	34	33	67	76.503	137	136	273
Pass-By Reduction (50% I	Daily/49% AM/50% PM) <sup>2</sup>		-1,102		-17	-16	-33		-69	-68	-137
Net Project Trips			1,102		17	17	34		68	68	136

#### Notes:

#### **Trip Distribution and Assignment**

The trip distribution pattern for the project was estimated based on existing travel patterns on the surrounding roadway network. The trip distribution patterns for the proposed restaurant are shown on Figure 5.

The peak-hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution patterns for each land use and the locations of project driveways (see Figure 5).

Note that since there are raised center medians on Silver Creek Road and Capitol Expressway, left turns from the existing project driveways onto northbound Silver Creek Road and eastbound Capitol Expressway are not possible. The trip assignment reflects these turn restrictions.

#### **Traffic Volumes Under All Scenarios**

#### **Existing Traffic Volumes**

Existing AM and PM peak-hour traffic volumes (see Figure 6) were obtained from the City of San Jose and the 2018 CMP Annual Monitoring Report. Not all of the study intersections have recent traffic counts within the past two years. Due to Covid-19, the new traffic counts conducted in September 2021 showed a 40 percent decrease in traffic volume. Therefore, a growth rate of one percent per year was applied to the previous traffic counts older than 2 years to estimate the existing traffic volumes. Traffic volumes for all traffic scenarios are tabulated in Appendix B.



<sup>1.</sup> Peak-hour trips are based on counts at Chick-Fil-A with drive-through window at 1156 Blossom Hill Road in San Jose, on September 30, 2021. Daily trips are based on observed peak-hour trips and the ratio of peak-hour trips to daily trips published in the ITE *Trip Generation Manual*, 10th Edition for Land Use Code 934: Fast-Food Restaurant with Drive-Through.

<sup>3.</sup> An average 49% and 50% pass-by trip reduction was applied to the restaurant AM and PM inbound and outbound peak-hour trips, respectively, based the ITE *Trip Generation Handbook, 3rd Edition*, for Fast-Food Restaurant with Drive-Through Window (Land Use 934).

Chick-Fil-A Silver Creek & Capitol Expressway LTA 1 3 2 4 3(14) 3(10) \_ 3(10) Silver Creek Rd \_ 3(10) Aborn Rd **←** 5(20) Aborn Rd Lexann Ave 9(34) 3(10) <del>\*\*</del> 3(10) \*\* 3(10) <del>\*\*</del> 3(10) <del>\*\*</del> 3(10) → 3(14) 5(20) Capitol Expy Silver Creek Rd Silver Creek Rd Monrovia Dr Α 7(27) BarberryLn 15% 5(20) Silver Creek Rd В 2 San Jose Lexann Rye 3 Lexann Ave **4**(17) Abom Rd Dwy B 2000 C 101 Daniel Maloney Dr € 6(24) Silver Creek Rd **LEGEND** Colt Way = Site Location = Study Intersection X = Driveway Intersection **XX%** = Trip Distribution XX(XX) = AM(PM) Peak-Hour Trips **Project Trip Distribution and Assignment** 





#### **Background Traffic Volumes**

Background AM and PM peak-hour traffic volumes were estimated by adding to existing traffic volumes the trips generated by nearby approved but not vet completed or occupied projects (see Figure 7). The added traffic from approved but not yet constructed developments in the City of San Jose was obtained from the City's Approved Trip Inventory (ATI). The San Jose ATI for the study is listed in Appendix A.

#### **Background Plus Project Traffic Volumes**

Project trips were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 8).

#### **Intersection Traffic Operations**

The results of the intersection level of service analysis are shown in Table 4. The detailed intersection level of service calculation sheets for all study scenarios are included in Appendix C.

#### **Existing and Background Conditions**

Intersection levels of service were evaluated against the standards of the City of San Jose and CMP. The results of the analysis show that the Capitol Expressway/Aborn Road intersection would operate at an unacceptable level of service under existing and background conditions during both the AM and PM peak hours. The Capitol Expressway/Silver Creek Road intersection would operate at unacceptable levels of service during the AM peak hour under existing and background conditions. The remaining study intersections are operating at acceptable levels of service during the AM and PM peak hours of traffic under existing and background conditions.

#### **Project Conditions**

The Capitol Expressway/Aborn Road and Capitol Expressway/Silver Creek Road intersections would continue to operate at unacceptable levels of service under the project conditions. However, the results of the analysis show that the added project trips would not cause an adverse operations effect at the study intersections. The project will be required to provide a study after one year of operations to determine whether it is creating any operational problems on the surrounding transportation network and to determine whether any improvements are necessary.

Table 4 Intercepton Level of Carvice Cummary

					Existing		Background						
							No Project			with	Project		
Inte	esection	LOS Standard	Peak Hour	Count Date	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Critical Delay (sec)	Incr. in Critical V/C	
1	Capitol Expy and Aborn Rd	D	AM PM	10/27/15 10/03/12	57.7 71.4	E+ E	69.1 87.5		69.3 88.2	E F	0.3 1.2	0.001 0.003	
2	King Rd/Silver Creek Rd and Aborn Rd	D	AM PM	10/20/15 03/09/11	33.8 36.7	C- D+	34.6 37.7		34.6 37.8	C- D+	0.0 0.0	0.001 0.004	
3	Silver Creek Rd and Lexann Ave	D	AM PM	10/29/15 10/29/15	20.6 37.2	C+ D+		C+ D+	20.9 38.0	C+ D+	1.1 1.5	0.012 0.045	
4	Silver Creek Rd and Capitol Expy*	E	AM PM	10/27/15 11/08/18	<b>200.9</b> 51.8	<b>F</b> D-	<b>219.8</b> 56.1		<b>220.6</b> 55.7	<b>F</b> E+	2.0 -0.8	0.004 0.000	



**Bold** indicates a substandard level of service



Figure 6 Existing Traffic Volumes





Figure 7 Background Traffic Volumes





Figure 8
Background Plus Project Traffic Volumes





## **Intersection Queuing Analysis**

The analysis of intersection operations was supplemented with a vehicle queuing analysis for intersections where the project would add a substantial number of trips to the left-turn movements. This analysis provides a basis for estimating future storage requirements at the intersections under existing, background, and project conditions. Vehicle queues were estimated using a Poisson probability distribution, described in Chapter 1. The following left-turn movements were evaluated, and the results of the queueing analysis are summarized in Table 5:

- Westbound left turn on Aborn Road at King Road/Silver Creek Road
- Northbound left/U-turn and eastbound movements at Silver Creek Road and Lexann Avenue

The queuing analysis indicates that the following movements would have queuing deficiencies caused or exacerbated by the project (see Table 5):

- Westbound left turn on Aborn Road at King Road/Silver Creek Road
- Eastbound movements on Lexann Avenue at Silver Creek Road

Due to the congestion of Capitol Expressway and Silver Creek Road, the northbound left turn capacity was also analyzed to determine any queuing deficiencies that currently exist. Table 5 shows that the intersection currently has adequate storage for the existing queue, and the storage lanes are expected to remain adequate for the background and background plus project conditions. The project is not expected to add more than 10 trips per lane to the northbound left turn queue. Based on field observations, the queue occasionally extended past the storage lane and took two cycles to clear. However, the through lanes had no issues clearing the intersections.

## Westbound Left Turn on Aborn Road at King Road/Silver Creek Road

The westbound left-turn lane has approximately 175 feet (7 vehicles) of storage without interfering with other movements. There are estimated to be 11 vehicles in the 95th percentile queue during the AM peak hour and 10 vehicles during the PM peak hour, under existing and background conditions. The queue exceeds the storage lanes by four vehicles during the AM peak hour and three vehicles during the PM peak hour. The project would increase the length of the 95th percentile queue by one vehicle during the PM peak hour. Thus, the queue would extend past the storage lane by four vehicles during the PM peak hour. The westbound left turn pocket could be extended by modifying the landscaped median to accommodate the extra four vehicles. However, because of the low westbound through traffic in the PM peak hour, the 95th percentile queue briefly extending to the through lane is not expected to adversely affect the westbound traffic flow.

#### **Eastbound Movements on Lexann Avenue at Silver Creek Road**

The eastbound movement lane has approximately 300 feet (12 vehicles) of storage between the intersection and the first driveway along eastbound Lexann Avenue. There are estimated to be six vehicles in the 95th percentile queue during the AM peak hour and 14 vehicles during the PM peak hour, under existing and background conditions. Under existing and background conditions, the queue would extend past the driveway by two vehicles during the PM peak hour. The project would increase the length of the 95th percentile queue by one vehicle during the AM peak hour and three vehicles during the PM peak hour. Thus, the queue would extend past the driveway by six vehicles during the PM peak hour. It is expected that vehicles would leave a space at the driveway for inbound and outbound vehicles. Also, there is a second driveway to the shopping center 300 feet from Silver Creek Road that would not be blocked by queues. Project traffic would have the option of using this second driveway.



**Table 5 Intersection Queuing Analysis** 

		King Rd/Silver Creek Rd & Aborn Rd			eek Ro nn Ave	Silver Creek Road & Capitol Expy		
	WI	NE	3L	EBL	T/R <sup>2</sup>	NBL		
Analysis Scenario	AM	PM	AM	PM	AM	PM	AM	PM
Existing								
Cycle (sec)	110	124	116	124	116	124	150	169
Volume (vph)	207	176	119	247	88	259	548	729
Number of lanes	1	1	1	1	1	1	2	2
Volume (vphpl)	207	176	119	247	88	259	274	365
95th %. Queue (veh/ln)	11	10	7	14	6	14	17	24
95th %. Queue <sup>1</sup> (ft/ln)	275	250	175	350	150	350	425	600
Storage (ft/In)	175	175	225	225	300	300	650	650
Adequate (Y/N)	N	N	Υ	N	Υ	N	Υ	Υ
Background								
Cycle (sec)	110	124	116	124	116	124	150	169
Volume (vph)	207	176	120	248	88	264	559	731
Number of lanes	1	1	1	1	1	1	2	2
Volume (vphpl)	207	176	120	248	88	264	280	366
95th %. Queue (veh/ln)	11	10	7	14	6	14	18	24
95th %. Queue <sup>1</sup> (ft/ln)	275	250	175	350	150	350	450	600
Storage (ft/In)	175	175	225	225	300	300	650	650
Adequate (Y/N)	N	N	Υ	N	Υ	N	Υ	Υ
Background Plus Proj	ect							
Cycle (sec)	110	124	116	124	116	124	150	169
Volume (vph)	212	196	126	268	107	343	562	745
Number of lanes	1	1	1	1	1	1	2	2
Volume (vphpl)	212	196	126	268	107	343	281	373
95th %. Queue (veh/ln)	11	11	8	14	7	18	18	25
95th %. Queue <sup>1</sup> (ft/ln)	275	275	200	350	175	450	450	625
Storage (ft/In)	175	175	225	225	300	300	650	650
Adequate (Y/N)	N	N	Υ	N	Υ	N	Υ	Υ

#### Notes:

NBL = northbound left-turn movement; EBL/T/R = eastbound left-turn/through/right turn movement; WBL = westbound left-turn movement.

## **Drive-Through Analysis and Operations**

The City of San Jose created Council Policy 6-10 for developments with drive-through facilities within the City. The intent of this policy is to provide guidelines for the development of establishments with



<sup>&</sup>lt;sup>1</sup> Assumes 25 feet per vehicle queued.

<sup>&</sup>lt;sup>2</sup> Storage length measured from intersection to first driveway.

drive-through facilities within the City. All establishments with drive through facilities must meet the following criteria to be approved for a conditional use permit or planned development permit:

- Primary ingress and egress to drive-through type use parking lots should be from at least a fourlane major street
- The drive through stacking lane should be situated so that any overflow from the stacking lane should not spill out onto public streets or major aisles of any parking lot. Overflow capacity should be 50 percent of the required stacking for overflow restricted to the parking lot and 100 percent of required stacking for overflow that is directed to the street.
- No ingress and egress points should conflict with turning movements of street intersections
- No drive-through use should be approved with ingress or egress driveways within 300 feet of a signalized intersection operating at a Level of Service D, E, or F, unless a traffic analysis demonstrates that project vehicles will not impair the efficiency or operation of the intersection.
- Restaurant drive through stacking lanes should have a capacity of 8 vehicles per lane.
- No pedestrian crossing of the drive-through lane should be allowed.
- Proposed drive through uses at or near signalized intersections may compound existing traffic
  congestion and make it intolerable even if the intersection meets the Transportation LOS Policy.
  In these situations, proposed drive through uses should be discouraged.

#### **Primary Parking Lot Site Access**

The primary access to the Chick-Fil-A parking lot would be from the driveway on Silver Creek Road. Silver Creek Road is a four-lane city connector along the project frontage, which meets the City's requirement that the primary ingress and egress should be from at least a four-lane major street.

The ingress/egress points of the project would not interfere with turning movements of the Capitol Expressway/Silver Creek Road intersection. As described further below, operational issues related to vehicle queueing/stacking and/or vehicle delay are not expected to occur at any of the project driveways.

#### **Drive-Through Stacking Lane**

As stated in Council Policy 6-10, restaurants require a capacity of 8 vehicles per stacking lane (20 feet per car). The project proposes two stacking lanes with a total capacity of 21 vehicles, which accounts for a required overflow capacity of 50 percent of the required stacking, and the overflow would occur within the parking lot.

At the existing Chick Fil A at 1162 Blossom Hill Road in San Jose, California, the maximum queue extended past the two stacking lanes by 11 vehicles. The stacking lanes provide a total capacity of 14 vehicles. Thus, a total of 25 vehicles were queued for the existing Chick Fil A drive through. Given that the existing Chick Fil A is approximately 4,758 square feet, there is approximately 5.254 vehicles per 1,000 s.f. of restaurant space. Thus, the project is expected to have a maximum queue of 19 vehicles, which would be contained within the project's drive through stacking lanes. Although the queue is expected to be contained within the drive through stacking lanes, Figure 10 shows the overflow operations for the occasional overflow past the two stacking lanes. Overflow past the two provided stacking lanes is expected to occur only if demand temporarily overcomes operational tempo, in situations such as crew shortages, exceptionally good weather during lunch time, local sports events adjourning coincidentally, etc.



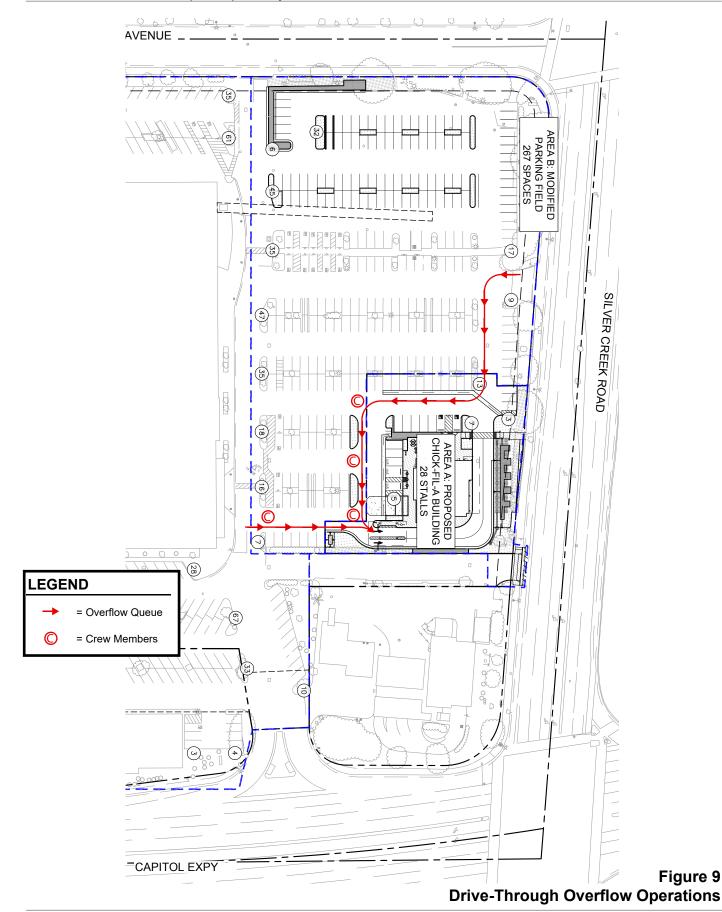






Figure 9

Depending on operational tempo, the operator may elect to set temporary traffic cones after the order point to merge customers into a single lane to proceed through the drive-thru to the food delivery area. As the operation becomes busier, crew members may be stationed along that section of the drive-thru operation to direct customers into one of the two lanes so as to stack the customers in roughly the same sequence that their food order is expected to be ready. In high operational tempo, customers will not normally 'change' lanes but remain in the lane in which they entered when they ordered their food and a crew member will hand deliver their food in their lane.

#### **Driveway Proximity to Signalized Intersections**

The proposed driveway that would provide inbound traffic to the drive-through facility would be approximately 180 feet from the signalized intersection of Capitol Expressway and Silver Creek Road. Thus, the project requires an intersection operations analysis of the Capitol Expressway and Silver Creek Road intersection because the project driveways are less than 300 feet from a signalized intersection.

#### **Traffic Operations at Nearby Intersections**

As previously discussed, the results of the analysis show that the Silver Creek Road/Lexann Avenue intersection is operating at LOS C and LOS D during the AM and PM peak hours of traffic under existing conditions, respectively. Similarly, the Capitol Expressway/Silver Creek Road intersection operates at LOS D during the AM and PM peak hours under existing conditions.

However, the project is not expected to impair the efficiency or operation of the intersections. It is not expected that the drive through would queue back to either intersection or affect the operations of either intersection.

#### **Pedestrian Safety**

The site plan shows a crosswalk across the end of the drive through stacking lane prior to the vehicle exit. This crosswalk would provide pedestrian access from the street to the building entrance. However, it is not anticipated that very many customers would come in from the street. Any customers parking in the lot would not need to cross the drive through lane.

#### **Drive-Through Operations**

The project proposes two drive through stacking lanes. The lane farther away from the building's pickup window would serve as a bypass lane, which would allow guests with smaller orders to be served their food and exit the lane prior to reaching the pick-up window if the vehicle at the pickup window has a large order that takes additional time to complete.

If the drive-through queue were to extend past the stacking lane, team members would assist with face-to-face ordering via an iPad ordering system. The system would be used during the peak hours and any additional necessary time. The system would allow team members to take orders, receive payment, and assist with traffic movement within the parking lot. The queue would be monitored to ensure that the drive-through does not block vehicle circulation within the parking lot. Appendix E describes the full operations management plan by Chick-Fil-A.

#### Vehicular Site Access and On-Site Circulation

The site access and circulation evaluations are based on the site plan prepared by Ware Malcomb, dated January 6, 2022 (see Figure 2 in Chapter 1). Site access was evaluated to determine the adequacy of the site's driveways with regard to the following: traffic volume, vehicle queues, geometric design, and stopping sight distance. On-site vehicular circulation and parking layout were reviewed in



accordance with generally accepted traffic engineering standards and transportation planning principles.

#### Site Access

Vehicular access to the project site would be provided via existing driveways along Lexann Avenue, Capitol Expressway, and Silver Creek Road.

#### **Project Driveway Design**

According to the City of San Jose Department of Transportation (DOT) Geometric Design Guidelines, the typical width for a driveway that serves a commercial development is between 16 to 32 feet wide This provides adequate width for vehicular ingress and egress and provides a reasonably short crossing distance for pedestrians. All existing driveways meet the City's standards.

#### Traffic Operations at Project Driveways

As shown in Table 3, the gross site trips would be 34 inbound trips and 33 outbound trips during the AM peak hour, and 137 inbound trips and 136 outbound trips during the PM peak hour.

#### Silver Creek Road Driveways

The estimated trips occurring at the Silver Creek Road driveways would be 7 inbound trips and 5 outbound trips during the AM peak hour and 27 inbound trips and 20 outbound trips during the PM peak hour (see Figure 10). The project assumes all trips will enter and exit from the new driveway. However, it is likely that some of the traffic will use the existing shared driveway. Due to the median on Silver Creek Road, all trips would make a right turn into and out of the driveways, and significant operational issues related to vehicle queueing and vehicle delay for inbound and outbound traffic are not expected to occur. Some minor on-site vehicle queuing could occur due to a combination of the inherent unpredictability of vehicle arrivals at the driveway and the random occurrence of gaps in traffic along Silver Creek Road. However, given the estimated maximum 20 outbound trips in the PM peak hour at the Silver Creek Road driveway, which calculates to about one outbound trip every 180 seconds, the probability of two or more outbound vehicles exiting either of the driveways at the same time would be low. The maximum queues at either driveway are not expected to affect the on-site circulation. Vehicles turning right into the project site may impede flow in the travel lane momentarily due to vehicles slowing down to turn into the driveway, but this would not have a significant effect on traffic operations.

#### **Lexann Avenue Driveway**

The trips that are estimated to occur at the Lexann Avenue driveway are 4 inbound trips and 9 outbound trips in the AM peak hour and 17 inbound trips and 34 outbound trips during the PM peak hour (see Figure 10). Most, if not all, of the traffic is expected to make a left turn into the driveway from Lexann Avenue. Because the traffic along eastbound Lexann Avenue is low, there is expected to be minimal delay for the westbound left turn traffic. Some minor on-site vehicle queuing could occur due to a combination of the inherent unpredictability of vehicle arrivals at the driveway and the random occurrence of gaps in traffic along Lexann Avenue. However, given the estimated maximum 34 outbound trips in the PM peak hour at the Lexann Avenue driveway, which calculates to about one outbound trip every 106 seconds, the probability of two or more outbound vehicles exiting the driveway at the same time would be low. The maximum queues at the driveway are not expected to affect the on-site circulation.

#### **Capitol Expressway Driveway**

The estimated trips generated by the project occurring at the Capitol Expressway driveway would be 6 inbound trips and 3 outbound trips during the AM peak hour and 24 inbound trips and 14 outbound trips



during the PM peak hour (see Figure 10). Due to the median on Capitol Expressway, all trips would make a right turn into and out of the driveway, and significant operational issues related to vehicle queueing and vehicle delay for inbound and outbound traffic are not expected to occur. Some minor onsite vehicle queuing could occur due to a combination of the inherent unpredictability of vehicle arrivals at the driveway and the random occurrence of gaps in traffic along Capitol Expressway. Vehicles turning right into the project site may impede flow in the travel lane momentarily due to vehicles slowing down to turn into the driveway, but this would not have a significant effect on traffic operations.

Based on field observations conducted in November 2021, the driveway operates adequately during the AM and PM peak hours. During the PM peak hour, the maximum outbound queue was three vehicles. The inbound traffic had no queuing issues. Thus, it is expected that the added trips from generated by the project would not affect the driveway.

#### Sight Distance at Project Driveways

The project driveways should be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and vehicles and bicycles traveling on Lexann Avenue, Silver Creek Road, and Capitol Expressway. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway and provides drivers with the ability to locate sufficient gaps in traffic and exit a driveway. The minimum acceptable sight distance is considered the Caltrans stopping sight distance. Sight distance requirements vary depending on roadway speeds. The existing driveways to remain on Lexann Avenue, Silver Creek Road, and Capitol Expressway provide adequate sight distance. As discussed below, the new project driveway would meet the Caltrans stopping sight distance standards, and sight distance is adequate at the project driveway.

#### Silver Creek Road Driveway

The posted speed limit on Silver Creek Road is 35 mph. The Caltrans stopping sight distance is 300 feet (based on a design speed of 40 mph). Thus, a driver must be able to see 300 feet looking left on Silver Creek Road to locate a sufficient gap to turn out of the driveways, as the driveways would only allow exiting vehicles to make a right turn. The existing northern driveway on Silver Creek Road to remain is approximately 300 feet from the new project driveway. There are no roadway curves to obstruct the exiting vehicles at the project driveway on Silver Creek Road. Thus, sight distance would be adequate for exiting vehicles at the Silver Creek Road driveway.









#### **On-Site Circulation**

#### **Parking Lot**

On-site vehicular circulation was reviewed for the parking lot in accordance with generally accepted traffic engineering standards. The project would provide 28 parking spaces for the Chick-Fil-A restaurant, located west and south of the proposed building. Additional parking stalls would be added along the northern section of the entire site. Parking stalls would be accessed via 26- to 29-foot drive aisles. According to the City Ordinance, Section 20.90.100, the minimum width for two-way drive aisles is 26 feet wide where 90-degree parking is provided. Thus, the project would meet the City's requirements.

#### **Parking Stall Dimensions**

The City's off-street parking design standard for 90-degree uniform parking stalls is 8.5 feet wide by 17 feet long. The 90-degree parking stalls are shown to be 9 feet wide by 18 feet long. The handicap stalls all measure at least 9 feet wide by 18 feet long and include access aisles of 8 feet, which meets the City's standards.

#### **Truck Access and Circulation**

The project site plan was reviewed for truck access using truck turning-movement templates for a SU-30 truck type (single unit trucks), which represents small emergency vehicles, garbage trucks, and small to medium delivery trucks. Based on the site plan configuration, adequate access would be provided for trucks to access the site from Silver Creek Road and maneuver through the site via the drive aisles provided (see Appendix D).

#### **Loading Operations**

According to the City of San Jose Zoning Regulations, commercial buildings having a floor area of 10,000 square feet or more should provide at least one off-street loading space. Thus, the project would not require any loading spaces.

#### **Garbage Collection**

The site plan shows trash enclosures in the southwest corner of the site. However, due to the proposed drive through aisle, garbage trucks would not be able to access the enclosure if more than 9 vehicles were in the left drive through lane. Garbage collection times should be coordinated for when drive-through queues are short.

## **Emergency Vehicle Access**

Silver Creek Road and the project driveways would provide emergency vehicle access to all sides of the project building. The City of San Jose Fire Department requires that all portions of the buildings be within 150 feet of a fire department access road and requires a minimum of 6 feet clearance from the property line along all sides of the buildings. According to the project site plan, the project would meet the 6-foot clearance and 150-foot requirements.

## **Capitol Expressway Vision Zero Corridor**

Capitol Expressway between I-680 and SR 87 is designated as a "Priority Safety Corridor" as part of *Vision Zero San Jose*, January 2020. The goal of Vision Zero San Jose is to create a community culture that prioritizes traffic safety and ensures that mistakes on roadways do not result in severe injury or death. Vision Zero is designed to create policies that focus on roadway safety for all modes, particularly non-automobile modes. Priority Safety Corridors are identified as major street segments



that have the highest frequency of fatal and severe injury for people walking, bicycling, motorcycle riding, and driving. Streets with these "Priority Safety Corridor" designations are given priority within the City's Transportation Capital Improvement Program (CIP) to provide safer transportation systems for all users. As stated in the April 2015 *Vision Zero San Jose*, safety improvement plans for Capitol Expressway include coordinating with the County to evaluate safety issues and determine feasible improvements. A sidewalk gap closure project was funded for construction in 2016. The January 2020 *Vision Zero* has not identified safety improvement plans for the corridor.

## **Effects on Pedestrian and Bicycle Facilities**

The continuous network of sidewalks and crosswalks in the study area exhibits good connectivity and would provide pedestrians with safe routes to transit stops and other points of interest in the project area. Marked crosswalks are provided with pedestrian signal heads at most of the signalized intersections in the surrounding area. The nearby intersections have ADA curb ramps. All corners of the King Road/Silver Creek Road and Aborn Road intersection, the Silver Creek Road and Lexann Avenue intersection, and the Capitol Expressway and Silver Creek Road intersection have ADA curb ramps with truncated domes. Truncated domes are the standard design requirement for detectable warnings which enable people with visual disabilities to determine the boundary between the sidewalk and the street.

#### **Pedestrian Site Access**

The sidewalks on Lexann Avenue, Silver Creek Road, and Capitol Expressway would provide pedestrian access to the project site. The project is located in the E. Capitol Expressway/Silver Creek Road Urban Village, and therefore, the sidewalk along the project frontage on Silver Creek Road should be 12 to 15 feet wide, based on typical Urban Village requirements. The City requires a 10-footwide sidewalk along Lexann Avenue. The site plan shows that the project would construct new sidewalks along Lexann Avenue and Silver Creek Road. Lexann Avenue would have a 10-foot-wide sidewalk and Silver Creek Road would have a 12-foot-wide sidewalk. Thus, the project would meet the City's requirements for sidewalks. The front doors of the project building would face the parking lot on the north and west sides.

#### **Bicycle Site Access**

There are Class II bike lanes on King Road/Silver Creek Road, Aborn Road, and Capitol Expressway. These bicycle facilities would provide access to the project sites.

Short-term bicycle racks would be located in the northwest corner of the building, near the proposed outdoor dining tables. Access to the bike racks would be provided by Silver Creek Road.

The project should provide an in-lieu contribution for the future Class IV protected bike lane along the project frontage on Silver Creek Road, per the City's 2025 Better Bike Plan.

#### **Effects on Transit Services**

The project site is served by Routes 42 and 71 on Silver Creek Road. The bus stop closest to the project site is located on Silver Creek Road, south of Lexann Avenue. The bus stop serves southbound Route 71. The bus stops for the remaining routes are all within 900 feet from the project site (see Figure 3).

Due to the close proximity of bus service, it is possible that some employees and customers of the project would utilize the existing transit services. The increase in new riders could be accommodated by



the currently available capacity of the bus services in the study area. However, the project should coordinate with VTA to provide bus stop improvements as part of the Urban Village requirements.

# **Urban Village Requirements**

The project site is located within the E. Capitol Expressway/Silver Creek Road Urban Village Boundary. Sites within an Urban Village must incorporate additional urban design and architectural elements that will facilitate a building with pedestrian orientated design and activate the pedestrian public right-of-way. Although an Urban Village Plan has not yet been developed for the E. Capitol Expressway/Silver Creek Road area, according to the adopted Urban Village Plans, the project might be subject to implement the following Urban Village design features to improve pedestrian and transit facilities:

- Provide a minimum sidewalk width along the project frontage on Lexann Avenue and Silver Creek Road in accordance with typical Urban Village design standards. Projects within an Urban Village are typically required to construct a minimum 12 to 15-foot sidewalk along the project frontage for major streets that are not designated as Grand Boulevards. The project would widen the sidewalk on Silver Creek Road along the project frontage to 12 feet to meet the Urban Village standards.
- Minimize driveway cuts to minimize conflicts between pedestrians and vehicles and reduce transit delay. The project would not increase the number of driveways within the site.
- Provide enhanced shelters for transit services. A bus stop for Route 71 is located along the
  project frontage on Silver Creek Road, south of Lexann Avenue. The project should work with
  VTA to provide any necessary improvements to the bus stop to meet the current VTA shelter
  and bus stop standards.

# **Parking**

### **Vehicle Parking**

The City of San Jose's off-street parking requirement as described in the City's Zoning Code (Chapter 20.90, Table 20-210) for public eating establishments is the greater of 1 parking space per 2.5 seats or 1 space per 40 s.f. of dining area. The project would provide 40 seats within 704 s.f. of dining area. Therefore, the project would require 18 parking spaces for the indoor space. The City also requires 1 space per 2.5 seats over 25 seats for outdoor dining incidental to public eating establishments. The project would provide 28 outdoor seats, which would require an additional 2 parking spaces. Thus, the project requires 20 parking spaces. The project proposes to provide 28 standard parking spaces for the restaurant. The development would also remove a net of 95 existing parking spaces. Therefore, the project must also provide adequate parking for the existing retail uses on site.

For retail developments, the City requires one parking space per 225 s.f. of floor area, which equates to 85 percent of the gross floor area. The existing retail uses to remain equal 153,126 s.f. of gross floor area. Therefore, the project would be required to provide 579 spaces to accommodate the existing retail space, in addition to the restaurant. The project proposes to provide 568 parking spaces, not counting the restaurant parking. Thus, the project should provide 9 additional parking spaces for the existing retail space to remain.

#### **Clean Air Vehicle Parking**

According to the City's zoning code, the project is required to provide one clean air vehicle parking space, given that 28 standard parking spaces would be provided. The project would provide one clear air vehicle space and 3 electric vehicle (EV) spaces.



#### **Bicycle Parking**

The City of San Jose's bicycle parking requirements as described in the City's Zoning Code (Chapter 20.90, Tables 20-190) for public eating establishments are 1 per 50 seats. At least 80 percent of the bicycle parking spaces should be provided in short-term bicycle racks, and a maximum of 20 percent should be provided in long-term bicycle spaces. The project is required to provide two short-term bicycle parking spaces and one long-term bicycle parking space. The site plan shows two bicycle racks in the northwest corner of the site, near the outdoor dining tables, and space for long-term bicycle storage in the parking lot, near the southwest corner of the building.

## **Motorcycle Parking**

The City requires one motorcycle parking space for every 20 code-required vehicle parking spaces for commercial uses (per Chapter 20.90, Table 20-250 of the City's Zoning Code). Thus, the project is required to provide one motorcycle parking space and would provide 3 motorcycle parking spaces.

### **Construction Activities**

Typical activities related to the construction of any development could include lane narrowing and/or lane closures, sidewalk and pedestrian crosswalk closures, and bike lane closures. In the event of any type of closure, clear signage (e.g., closure and detour signs) must be provided to ensure vehicles, pedestrians and bicyclists are able to adequately reach their intended destinations safely. Per City standard practice, the project would be required to submit a construction management plan for City approval that addresses the construction schedule, street closures and/or detours, construction staging areas and parking, and the planned truck routes.



# 4. Conclusions

This study was conducted for the purpose of identifying the potential transportation impacts related to the proposed development. The transportation impacts of the project were evaluated following the standards and methodologies established in the City of San Jose's *Transportation Analysis Handbook*. Based on the City of San Jose's Transportation Analysis Policy and *Transportation Analysis Handbook*, the transportation analysis report for the project includes a CEQA transportation analysis and a local transportation analysis (LTA). The LTA includes an evaluation of the estimated project trip generation, site access, on-site circulation, parking, and effects to transit, bicycle, and pedestrian facilities.

# **CEQA Transportation Analysis**

The proposed project, a fast-food restaurant with drive through facilities, meets the screening criteria set forth the *Transportation Analysis Handbook* for retail uses. Retail projects of 100,000 s.f. or less and are considered local-serving projects and result in less-than-significant VMT impacts according to the screening criteria. The project would build 3,565 s.f. of restaurant space. Thus, the project is expected to have a less-than-significant VMT impact.

# **Local Transportation Analysis**

# **Project Trip Generation**

Based on the ITE trip rates and applicable reductions and credits, the project would generate 1,102 daily trips, 34 AM peak hour trips (17 inbound and 17 outbound), and 136 PM peak hour trips (68 inbound and 68 outbound).

# **Intersection Level of Service Analysis**

The results of the intersection level of service analysis show that the Capitol Expressway/Aborn Road intersection would operate at unacceptable levels of service during both the AM and PM peak hours under existing and background conditions. The Capitol Expressway/Silver Creek Road intersection would operate at an unacceptable level of service during the AM peak hour under existing and background conditions. Under project conditions, the intersections would continue to operate at unacceptable levels of service, but the project traffic would not cause any adverse effects at the intersections. The other study intersections would operate an acceptable level of service with and without the project.

The Capitol Expressway/Silver Creek Road intersection is expected to operate at an unacceptable level of service (LOS F) during the AM peak hour. However, the existing storage lanes for northbound left turn traffic are adequate for existing, background, and background plus project volumes. The project will be required to provide a study after one year of operations to determine whether it is creating any



operational problems on the surrounding transportation network and to determine whether any improvements are necessary.

Table ES 2
Intersection Level of Service Summary

					Exist	ing	Background No Project with Project						
Inte	rsection	LOS Standard	Peak Hour	Count Date	Avg. Delay (sec)	LOS	Avg. Delay (sec) LOS	Avg. Delay (sec)	LOS	Critical Delay (sec)	Incr. in Critical V/C		
1	Capitol Expy and Aborn Rd	D	AM PM	10/27/15 10/03/12	57.7 71.4	E+ E	69.1 E 87.5 F	69.3 88.2	E F	0.3 1.2	0.001 0.003		
2	King Rd/Silver Creek Rd and Aborn Rd	D	AM PM	10/20/15 03/09/11	33.8 36.7	C- D+	34.6 C- 37.7 D+	34.6 37.8	C- D+	0.0 0.0	0.001 0.004		
3	Silver Creek Rd and Lexann Ave	D	AM PM	10/29/15 10/29/15	20.6 37.2	C+ D+	20.0 C+ 36.5 D+	20.9 38.0	C+ D+	1.1 1.5	0.012 0.045		
4	Capitol Expy and Silver Creek Rd*	E	AM PM	10/27/15 11/08/18	<b>200.9</b> 51.8	<b>F</b> D-	<b>219.8 F</b> 56.1 E+	<b>220.6</b> 55.7	<b>F</b> E+	2.0 -0.8	0.004 0.000		
Note:													

#### Note:

### **Intersection Queuing Analysis**

#### Westbound Left Turn on Aborn Road at King Road/Silver Creek Road

The westbound left-turn lane has approximately 175 feet (7 vehicles) of storage without interfering with other movements. The project would cause the 95th percentile queue to extend past the storage lane by four vehicles during the PM peak hour. The westbound left turn pocket could be extended by modifying the landscaped median to accommodate the extra four vehicles. However, because of the low westbound through traffic in the PM peak hour, the 95th percentile queue briefly extending to the through lane is not expected to adversely affect the westbound traffic flow.

#### Eastbound Movements on Lexann Avenue at Silver Creek Road

The eastbound movement lane has approximately 300 feet (12 vehicles) of storage between the intersection and the first driveway along eastbound Lexann Avenue. The project would cause the 95th percentile queue to extend past the driveway by six vehicles during the PM peak hour. However, it is expected that vehicles would leave a space at the driveway for inbound and outbound vehicles. Also, there is a second driveway to the shopping center 300 feet from Silver Creek Road that would not be blocked by gueues. Project traffic would have the option of using this second driveway.

# **Drive-Through Analysis**

The project would comply with Council Policy 6-10 with adequate primary parking lot access through Silver Creek Road, adequate drive through stacking lanes with a total capacity of 21 vehicles, and safe pedestrian crossings. In addition, the project would not adversely affect the nearby intersections of Silver Creek Road/Lexann Avenue and Capitol Expressway/Silver Creek Road. These intersections are within 300 feet of driveway entrances for the project.

## **Drive-Through Operations**

The project proposes two drive through stacking lanes. The lane farther away from the building's pickup window would serve as a bypass lane, which would allow guests with smaller orders to be served their food and exit the lane prior to reaching the pick-up window if the vehicle at the pickup window has a large order that takes additional time to complete.



<sup>\*</sup> Denotes the CMP designated Intersection **Bold** indicates a substandard level of service

If the drive-through queue were to extend past the stacking lane, team members would assist with face-to-face ordering via an iPad ordering system. Team members would also be present within the parking lot to direct the queue from the driveway entrances. The system would be used during the peak hours and any additional necessary time. The system would allow team members to take orders, receive payment, and assist with traffic movement within the parking lot. The queue would be monitored to ensure that the drive-through does not block vehicle circulation within the parking lot. Appendix F describes the full operations management plan by Chick-Fil-A.

#### **Other Transportation Issues**

Hexagon conducted a site plan review, queuing analysis, pedestrian, bicycle and transit facility analysis and parking analysis for the proposed project. Generally, the project would not have an adverse effect on the existing transit services, pedestrian facilities, or bicycle facilities in the study area. Hexagon provides the following recommendations for the project:

#### Recommendations

- The project should provide enhanced shelters for the Route 71 bus stop located along the
  project frontage on Silver Creek Road, south of Lexann Avenue. The project should coordinate
  with VTA to provide any necessary improvements to the bus stop to meet the current VTA
  shelter and bus stop standards.
- The project should provide an in-lieu contribution for the future Class IV protected bike lane along the project frontage on Silver Creek Road, per the City's 2025 Better Bike Plan.



# Chick-Fil-A Silver Creek Road and Expressway Local Transportation Analysis

**Technical Appendices** 

# Appendix A

San Jose ATI

Intersection of : Aborn Rd & Silver Creek Rd / S King Rd

Traffix Node Number: 3216												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
EDPZONEH Residential EVERGREEN EDP ZONE H	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEQ Residential EVERGREEN EDP ZONE Q	0	2	0	0	1	0	0	0	0	0	0	0
EDPZONES Residential EVERGREEN EDP ZONE S	0	0	0	0	0	0	0	0	0	0	0	0
EEHDP (OFFICE) Office/Industrial EVERGREEN EEHDP (OFFICE)	0	0	0	0	0	0	0	0	0	0	0	0
EEHDP (RES) Residential EVERGREEN EEHDP (RESIDENTIAL)	0	0	0	0	0	0	0	0	0	0	0	0
EEHDP (RETAIL) Retail/Commercial EVERGREEN EEHDP (RETAIL)	0	0	0	4	0	0	0	0	0	0	0	2
PDC81-03-017 (3-06434) Office/Industrial YERBA BUENA & FOWLER CAMPUS INDUSTRIAL	0	12	0	39	102	0	0	0	0	0	0	10

TOTAL: 0 14 0 43 103 0 0 0 0 0 12

	LEFT	THRU	RIGHT
NORTH	43	103	0
EAST	0	0	12
SOUTH	0	14	0
WEST	0	0	0

Intersection of : Aborn Rd & Silver Creek Rd / S King Rd Traffix Node Number: 3216 M09 M08 M07 M03 M02 M01 M12 M11 M10M06 M05 M04 Permit No./Proposed Land NBL NBT NBR SBL SBT SBR EBL EBT EBR WBT WBT WBR Use/Description/Location EDPZONEH Ω Ω Ω  $\cap$ Ω  $\cap$  $\cap$ Ω  $\cap$ Ω  $\cap$ Ω Residential EVERGREEN EDP ZONE H 0 EDPZONEQ Residential EVERGREEN EDP ZONE O EDPZONES Ω  $\cap$ Residential EVERGREEN EDP ZONE S 0 0 0 EEHDP (OFFICE) 0 0 0 0 0  $\cap$ 0 0 0 Office/Industrial EVERGREEN EEHDP (OFFICE) Ω  $\cap$ 1 Ω Ω Ω 0 Ω  $\cap$ 0 EEHDP (RES) Residential EVERGREEN EEHDP (RESIDENTIAL) Ω 8 0 0 Ω 0 0 0 Ω EEHDP (RETAIL) Retail/Commercial EVERGREEN EEHDP (RETAIL) 12 0 0 PDC81-03-017 (3-06434) 102 0 10 0 0 0 Office/Industrial

YERBA BUENA & FOWLER CAMPUS INDUSTRIAL

TOTAL: 0 103 1 18 14 0 0 0 0 0 0 47

	LEFT	THRU	RIGHT
NORTH	18	14	0
EAST	0	0	47
SOUTH	0	103	1
WEST	0	0	0

Intersection of : Lexann Av & Silver Creek Rd

Traffix Node Number: 3648

PDC81-03-017 (3-06434) Office/Industrial YERBA BUENA & FOWLER CAMPUS INDUSTRIAL	 0	12	0	0	101	0	0	0	0	0	0	0
EEHDP (RES) Residential EVERGREEN EEHDP (RESIDENTIAL)	 1	0	0	0	0	0	0	0	0	0	0	0
EDPZONES Residential EVERGREEN EDP ZONE S	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEQ Residential EVERGREEN EDP ZONE Q	 0	2	0	0	1	0	0	0	0	0	0	0
EDPZONEH Residential EVERGREEN EDP ZONE H	 0	0	0	0	0	0	0	0	0	0	0	0
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR

	LEFT	THRU	RIGHT
NORTH	0	102	0
EAST	0	0	0
SOUTH	1	14	0
WEST	0	0	0

Intersection of	f:	Lexann	Αv	&	Silver	Creek 1	Rd	
Intersection of	f:	Lexann	Αv	&	Silver	Creek 1	Ro	b

Traffix Node Number: 3648

	LEFT	THRU	RIGHT
NORTH	0	14	0
EAST	1	0	0
SOUTH	1	102	0
WEST	2	0	3

Intersection of : E Capitol Ex & Silver Creek Rd

Traffix Node Number : 5723												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
EDPZONED Residential EVERGREEN EDP ZONE D	0	0	0	0	1	0	0	0	0	0	0	0
EDPZONEH Residential EVERGREEN EDP ZONE H	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEJ Residential EVERGREEN EDP ZONE J	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEM Residential EVERGREEN EDP ZONE M	0	0	0	0	1	0	0	0	0	0	0	0
EDPZONEN Residential EVERGREEN EDP ZONE N	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEP Residential EVERGREEN EDP ZONE P	0	10	0	0	18	0	0	0	0	0	0	0
EDPZONEQ Residential EVERGREEN EDP ZONE Q	0	0	0	0	0	0	0	1	0	0	2	0

Intersection of : E Capitol Ex & Si	lver Creek Rd											
Traffix Node Number : 5723												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBF
EDPZONES Residential EVERGREEN EDP ZONE S	0	0	0	0	0	0	0	0	0	1	0	0
EEHDP (OFFICE) Office/Industrial EVERGREEN EEHDP (OFFICE)	0	0	0	0	0	0	0	5	0	0	0	0
EEHDP (RES) Residential EVERGREEN EEHDP (RESIDENTIAL)	1	3	0	0	1	0	0	2	0	0	5	0
EEHDP (RETAIL) Retail/Commercial EVERGREEN EEHDP (RETAIL)	0	0	4	0	0	0	0	22	0	1	11	0
NSJ LEGACY	1	2	0	0	0	0	1	13	18	1	1	0
NORTH SAN JOSE												
PDC13-009 (IND) (3-18407) LEGACY	8	0	0	13	26	0	0	4	11	0	9	7
COMMUNICATION HILL												
PDC13-009 (RES) (3-18407) LEGACY	3	0	0	5	11	0	0	1	4	0	3	2
COMMUNICATIONS HILL												

Intersection	of	:	$\mathbf{E}$	Capitol	Εx	&	Silver	Creek	Rd
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**Traffix Node Number:** 5723

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PDC13-009 (RET) (3-18407) LEGACY	0	0	0	1	0	0	0	0	0	0	0	0
COMMUNICATIONS HILL												
PDC81-03-017 (3-06434) Office/Industrial YERBA BUENA & FOWLER CAMPUS INDUSTRIAL	0	29	0	0	3	0	12	89	0	0	12	0
PDC99-11-086 (3-13395) Retail/Commercial MURILLO AV (N/S), OPP GROESBECK HILL DR MURILLO CHURCH AND SCHOOL	-2	0	5	0	0	0	0	18	0	3	7	0

TOTAL: 11 44 9 19 61 0 13 155 33 6 50 9

	LEFT	THRU	RIGHT
NORTH	19	61	0
EAST	6	50	9
SOUTH	11	44	9
WEST	13	155	33

Intersection of : E Capitol Ex & Silver Creek Rd

Traffix Node Number : 5723												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
EDPZONED Residential EVERGREEN EDP ZONE D	0	1	0	0	0	0	0	0	0	0	0	0
EDPZONEH Residential EVERGREEN EDP ZONE H	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEJ Residential EVERGREEN EDP ZONE J	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEM Residential EVERGREEN EDP ZONE M	0	1	0	0	0	0	0	0	0	0	0	0
EDPZONEN Residential EVERGREEN EDP ZONE N	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEP Residential EVERGREEN EDP ZONE P	0	18	0	0	10	0	0	0	0	0	0	0
EDPZONEQ Residential EVERGREEN EDP ZONE Q	0	0	0	0	0	0	0	2	0	0	1	0

PM PROJECT TRIPS											09/20	)/2021
Intersection of : E Capitol Ex & Silver C	Creek Rd											
Traffix Node Number : 5723												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
EDPZONES Residential EVERGREEN EDP ZONE S	0	0	1	0	0	0	0	0	0	0	0	0
EEHDP (OFFICE) Office/Industrial EVERGREEN EEHDP (OFFICE)	0	0	0	0	0	0	0	1	0	0	4	0
EEHDP (RES) Residential EVERGREEN EEHDP (RESIDENTIAL)	0	2	0	0	5	0	0	7	1	0	4	0
EEHDP (RETAIL) Retail/Commercial EVERGREEN EEHDP (RETAIL)	0	0	13	0	0	0	0	64	0	13	64	0
NSJ LEGACY	0	5	0	1	5	0	0	1	2	14	6	1
NORTH SAN JOSE												
PDC13-009 (IND) (3-18407) LEGACY	2	3	0	6	9	0	0	3	0	6	1	0
COMMUNICATION HILL												
PDC13-009 (RES) (3-18407) LEGACY	0	0	0	2	3	0	0	0	0	2	0	0
COMMUNICATIONS HILL												

Intersection of :	Ε	Capitol	Eχ	&	Silver	Creek	Rd
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Traffix Node Number : 5723													
Permit No./Proposed Land Use/Description/Location		M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
PDC13-009 (RET) (3-18407) LEGACY		0	1	0	0	1	0	0	0	0	0	0	0
COMMUNICATIONS HILL													
PDC81-03-017 (3-06434) Office/Industrial YERBA BUENA & FOWLER CAMPUS INDUSTRIAL		0	3	0	0	29	12	0	12	0	0	89	0
PDC99-11-086 (3-13395) Retail/Commercial MURILLO AV (N/S), OPP GROESBECK HILL DR MURILLO CHURCH AND SCHOOL		0	0	1	0	0	0	0	2	0	0	10	0
	TOTAL:	2	34	15	9	62	12	0	92	3	35	179	1

	LEFT	THRU	RIGHT
NORTH	9	62	12
EAST	35	179	1
SOUTH	2	34	15
WEST	0	92	3

Intersection of : Aborn Rd & E Capitol Ex

Traffix Node Number: 5724												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
EDPZONEA Residential EVERGREEN EDP ZONE A	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEB Residential EVERGREEN EDP ZONE B	0	0	0	0	1	0	0	0	0	0	0	0
EDPZONEC Residential EVERGREEN EDP ZONE C	0	0	0	0	1	0	0	0	0	0	0	0
EDPZONED Residential EVERGREEN EDP ZONE D	0	0	0	0	2	0	0	0	0	0	0	0
EDPZONEH Residential EVERGREEN EDP ZONE H	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEJ Residential EVERGREEN EDP ZONE J	0	0	0	0	1	0	0	0	0	0	0	0
EDPZONEK (3-11328) Residential EVERGREEN EDP ZONE K	0	0	0	0	0	0	0	0	0	0	0	0

Intersection of : Aborn Rd & E Capitol Ex

Traffix Node Number: 5724												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
EDPZONEL Residential EVERGREEN EDP ZONE L	0	0	0	0	1	0	0	0	0	0	0	0
EDPZONEM Residential EVERGREEN EDP ZONE M	0	0	0	0	0	0	0	0	0	1	0	0
EDPZONEN Residential EVERGREEN EDP ZONE N	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEO Residential EVERGREEN EDP ZONE O	0	0	0	3	1	0	0	0	0	0	0	1
EDPZONEP Residential EVERGREEN EDP ZONE P	0	17	0	4	20	11	0	0	0	0	0	2
EDPZONES Residential EVERGREEN EDP ZONE S	0	0	0	0	0	0	0	0	0	0	0	0
EEHDP (OFFICE) Office/Industrial EVERGREEN EEHDP (OFFICE)	0	6	0	0	0	0	1	0	0	0	0	4

											09/20	1/2021
Intersection of : Aborn Rd & E Capit	tol Ex											
Traffix Node Number : 5724												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
EEHDP (RES) Residential EVERGREEN EEHDP (RESIDENTIAL)	0	2	0	0	5	0	0	0	0	0	2	0
EEHDP (RETAIL) Retail/Commercial EVERGREEN EEHDP (RETAIL)	0	26	0	33	13	2	4	0	0	0	0	45
NSJ LEGACY	1	22	8	0	0	0	0	0	0	3	1	0
NORTH SAN JOSE												
PDC13-009 (IND) (3-18407) LEGACY	0	0	0	2	50	2	3	1	0	0	20	0
COMMUNICATION HILL												
PDC13-009 (RES) (3-18407) LEGACY	0	0	0	0	21	0	0	0	0	0	9	0
COMMUNICATIONS HILL												
PDC13-009 (RET) (3-18407) LEGACY	0	0	0	0	1	0	0	0	0	0	0	0
COMMUNICATIONS HILL												
PDC81-03-017 (3-06434) Office/Industrial YERBA BUENA & FOWLER CAMPUS INDUSTRIAL	0	0	42	77	0	0	0	39	0	10	10	39

AM PROJECT TRIPS 09/20/2021

Intersection of : Aborn Rd & E Capitol Ex

Traffix Node Number: 5724

Permit No./Proposed Land	M09	80M	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
Use/Description/Location	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
PDC99-11-086 (3-13395)	0	21	2	0	16	0	0	0	0	-6	0	0

PDC99-11-086 (3-13395)

Retail/Commercial

MURILLO AV (N/S), OPP GROESBECK HILL DR

MURILLO CHURCH AND SCHOOL

119 TOTAL: 1 94 52 133 15 8 40 8 42 91

	LEFT	THRU	RIGHT
NORTH	119	133	15
EAST	8	42	91
SOUTH	1	94	52
WEST	8	40	0

											09/20	/2021
Intersection of : Aborn Rd & E Capitol Ex												
Traffix Node Number: 5724												
Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
EDPZONEA Residential EVERGREEN EDP ZONE A	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEB Residential EVERGREEN EDP ZONE B	0	1	0	0	0	0	0	0	0	0	0	0
EDPZONEC Residential EVERGREEN EDP ZONE C	0	1	0	0	0	0	0	0	0	0	0	0
EDPZONED Residential EVERGREEN EDP ZONE D	0	2	0	0	0	0	0	0	0	0	0	0
EDPZONEH Residential EVERGREEN EDP ZONE H	0	0	0	0	0	0	0	0	0	0	0	0
EDPZONEJ Residential EVERGREEN EDP ZONE J	0	1	0	0	0	0	0	0	0	0	0	0
EDPZONEK (3-11328) Residential EVERGREEN EDP ZONE K	0	0	0	0	0	0	0	0	0	0	0	0

Intersection of : Aborn Rd & E Capitol Ex Traffix Node Number: 5724 M02 M09 M08 M07 M03 M01 M12 M11 M10 M06 M05 M04 Permit No./Proposed Land NBL NBT NBR SBL SBT SBR EBL EBT EBR WBL WBT WBR Use/Description/Location EDPZONEL Ω  $\cap$ Ω Ω Ω  $\cap$  $\cap$ Ω  $\cap$ Ω Ω 1 Residential EVERGREEN EDP ZONE L 0 Ω 0 EDPZONEM Residential EVERGREEN EDP ZONE M EDPZONEN Ω  $\cap$ Residential EVERGREEN EDP ZONE N 0 1 0 0 EDPZONEO 0 1 0 0 Ω 0 0 3 Residential EVERGREEN EDP ZONE O EDPZONEP Ω 20 0 2 17 Ω 11 0 0 Ω Residential **EVERGREEN** EDP ZONE P Ω Ω EDPZONES 0 0 0 Ω 0 0 Ω Residential EVERGREEN EDP ZONE S 1 0 3 5 0 0 0 0 EEHDP (OFFICE) 0 Office/Industrial EVERGREEN

EEHDP (OFFICE)

-											09/20	7/2021
Intersection of : Aborn Rd & E Cap.	itol Ex											
Traffix Node Number: 5724												
Permit No./Proposed Land _Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
EEHDP (RES) Residential EVERGREEN EEHDP (RESIDENTIAL)	0	7	0	2	4	0	2	2	0	0	2	0
EEHDP (RETAIL) Retail/Commercial EVERGREEN EEHDP (RETAIL)	0	78	0	114	78	8	8	0	0	0	2	104
NSJ LEGACY	0	1	1	3	22	3	0	0	0	5	3	0
NORTH SAN JOSE												
PDC13-009 (IND) (3-18407) LEGACY	0	17	0	0	8	0	0	32	0	8	0	0
COMMUNICATION HILL												
PDC13-009 (RES) (3-18407) LEGACY	0	8	0	0	3	0	0	15	0	3	0	0
COMMUNICATIONS HILL												
PDC13-009 (RET) (3-18407) LEGACY	0	1	0	0	0	0	0	1	0	0	0	0
COMMUNICATIONS HILL												
PDC81-03-017 (3-06434) Office/Industrial YERBA BUENA & FOWLER CAMPUS INDUSTRIAL	0	0	10	39	0	0	0	10	0	42	39	77

PM PROJECT TRIPS	09/20/2021
	(1977)177

Intersection of : Aborn Rd & E Capitol Ex

Traffix Node Number: 5724

Permit No./Proposed Land	M09	80M	M07	M03	M02	M01	M12	M11	M10	M06	M05	M04
Use/Description/Location	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
PDC99-11-086 (3-13395)	0	4	-1	0	10	0	0	0	0	0	0	0

PDC99-11-086 (3-13395)

Retail/Commercial

MURILLO AV (N/S), OPP GROESBECK HILL DR

MURILLO CHURCH AND SCHOOL

TOTAL: 144 11 164 147 11 21 58 46 189

	LEFT	THRU	RIGHT
NORTH	164	147	11
EAST	58	46	189
SOUTH	0	144	11
WEST	21	60	0

# **Appendix B**

**Volume Summary** 

## **Existing Volume Adjustment Summary**

							Number of g	rowth years
Study	Traffix				Coun	t Date	with 1%	per year
Inter. #	Node #	N/S Street	E/W Street	Jurisdiction	AM	PM	AM	PM
1	5724	Capitol Expy	Aborn Rd	CSJ	10/27/15	10/03/12	6	9
2	3216	King Rd/Silver Creek Rd	Aborn Rd	CSJ	10/20/15	03/09/11	6	10
3	3648	Silver Creek Rd	Lexann Ave	CSJ	10/29/15	10/29/15	6	6
4	5723	Capitol Expy	Silver Creek Rd	CSJ/CMP	10/27/15	11/08/18	6	3

Intersection Number: Traffix Node Number:		1 5724												
ntersection Name:		Capito	l Expy a	and Abor	n Rd					5	-16 0		40/00/04	
Peak Hour: Count Date:		AM 10/27/								D	ale of Ar	iaiysis.	12/20/21	
Scenario		Southb RT		pproach LT	Westb	ound Ap	proach LT	Northb RT	ound A	pproach LT	Eastbo	ound Ap	proach LT	To
Eviating Conditions		107	1164	290	193	662	1558	679	1572	114	33	176	92	66
Existing Conditions		107	1164	290	193	663	1558	6/9	1572	114	33	176	92	00
Approved Project Trips	CSJ ATI Total Approved Trips	15 15	133 133	119 119	91 91	42 42	8	52 52	94 94	1	0	40 40	8	6
Background Conditions		122	1297	409	284	705	1566	731	1666	115	33	216	100	72
Proposed Project Trips Passby Trips		3 0	3 0	0	0 0	3 0	0 0	0 0	3 0	0 0	0 0	3 0	3 0	1
Background + Project Conditions		125	1300	409	284	708	1566	731	1669	115	33	219	103	72
ntersection Number: Traffix Node Number: ntersection Name: Peak Hour:		2 3216 King R AM		· Creek F	Rd and A	born Rd				D	ate of Ar	nalysis:	12/20/21	
Count Date:	Me	10/20/ oveme												
Scenario				pproach LT	Westb	ound Ap	proach LT	Northb RT	ound A TH	pproach LT	Eastbo RT	ound Ap TH	proach LT	To
Existing Conditions		64	530	156	395	110	207	70	618	18	11	84	35	22
Approved Project Trips	CSJ ATI Total Approved Trips	0	103	43 43	12	0	0	0	14	0	0	0	0	1
	тогаг Арргочей тпрѕ													
Background Conditions		64	633	199	407	110	207	70	632	18	11	84	35	24
		^	3	0	0	0	5	5	3 0	0	0	0	0	1
		0	Ō	0	0	0	0	0	U	U	U	U	U	
Passby Trips  Background + Project Conditions  Intersection Number:				199	407	110	212	75	635	18	11	84	35	24
Passby Trips  Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour:		0 64 3 3648	0 636 Creek F		407	110		75	635	18 D	11	84		24
Passby Trips  Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:		0 64 3 3648 Silver AM 10/29/ oveme	0 636 Creek F	199	407 exann Av	110	212	75	635	18	11	84	35 12/20/21	24
Passby Trips  Background + Project Conditions  Intersection Number: ITraffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario		0 64 3 3648 Silver AM 10/29/ overne Southt RT	0 636 Creek R 15 nts bound A TH	199 Rd and Le	407  exann Av  Westbi	110 re ound Ap TH	212	75 Northb	635 ound A	D pproach	11 ate of Ar Eastbo	84  nalysis:	35 12/20/21 proach LT	24 To
Passby Trips  Background + Project Conditions  Intersection Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions	М	0 64 3 3648 Silver AM 10/29/ overnei Southt RT	0 636 Creek F 15 nts bound A TH	199 ed and Le	Westbrah	110 re ound Ap TH 8	212  pproach LT  22	Northb RT	635 ound A TH	18 D	ate of Ar  Eastbook RT  34	84 nalysis: Dund Ap TH	35 12/20/21 proach LT	70 17
Passby Trips  Background + Project Conditions  Intersection Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions		0 64 3 3648 Silver AM 10/29/ overne Southt RT	0 636 Creek R 15 nts bound A TH	199 Rd and Le	407  exann Av  Westbi	110 re ound Ap TH	212	75 Northb	635 ound A	D pproach	11 ate of Ar Eastbo	84  nalysis:	35 12/20/21 proach LT	70 17
Passby Trips  Background + Project Conditions  Background + Project Conditions  Intersection Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips	M, CSJ ATI	0 64 3 3648 Silver AM 10/29/ overner Southt RT 62	0 636  Creek Fints bound A TH 677	199 Rd and Le	407  exann Aw  Westb RT  30	110  Tele  Th  8	212  pproach LT  22	Northb RT 19	635 ound A TH 690	D pproach LT 119	11 Eastbook RT 34	84  nalysis:  pund Ap TH 10	35 12/20/21 proach LT 44	70 177 1
Passby Trips  Background + Project Conditions  Intersection Number: ITraffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips	M, CSJ ATI	0 64 3 3648 Silver AM 10/29/ ovemed RT 62 0	0 636 Creek F 15 nts bound A TH 677	199 Rd and Le	Westb RT 30	ound Ap TH 8	pproach LT 22 0	75  Northb RT  19  0	0und A TH 690	D pproach LT 119 1	11 Eastbo RT 34 0 0	84  malysis:  pund Ap TH  10  0	35 12/20/21 proach LT 44	24 TC 17 1 1 1 2
Proposed Project Trips Passby Trips Background + Project Conditions Background + Project Conditions Intersection Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips Passby Trips Passby Trips Background + Project Conditions	M, CSJ ATI	0 64 3 3648 Silver AM 10/29/ overnei Southt RT 62 0 62 3	0 636 Creek R 15 nts 500und A TH 677 102 102 779 6	199  Rd and Le  pproach LT  35  0  0  35	407  Westbington  30  0  30  0	110  re  ound Ap  TH  8  0  0  8	212 pproach LT  22  0  0  22  0	75  Northb RT  19  0  0  19  0	635 	18 D  pproach LT  119  1 1 1 1 120 3	11 Eastbo RT 34 0 0 34 0	nalysis:  Dund Ap TH  10  0  0  10	35 12/20/21 proach LT 44 0 0 44 9	24 17 17 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Passby Trips  Background + Project Conditions  Background + Project Conditions  Intersection Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Passby Trips	CSJ ATI Total Approved Trips	0 64 3 3 3648 Silver AM 10/29/9 Overmei Southt RT 62 62 68 68 68 68 68 68 68 68 68 68 68 68 68	0 636 Creek F 15 Ints 102 102 779 6 -3 782	199  Rd and Le  pproach LT  35  0  0  0  0  0  0	407  Westby RT  30  0  0  0  30  30	110  110  110  110  110  110  110  110	212 oproach LT  22  0 0 22  0 0	Northb RT 19 0 0 0 19 0 0	635 Ound A TH 690 14 14 704 0 -3	DDpproach LT 119 120 3 3 126	111  Eastbc RT  34  0  0  7  41	84  bund Ap TH  10  0  0  10  10	35 12/20/21 proach LT 44 0 0 44 9 3	2To171122223455676788989999999999999999999999999999999999999
Passby Trips  Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Nume: Peak Hour:	CSJ ATI Total Approved Trips	0 64 3 3 3648 Silver AM 10/29/ 62 0 62 3 3 688 4 4 5723 Capito AM 10/27/ 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 636  Creek R 15 Ints Ints 677 102 102 779 6 -3 782	199  pproach LT  35  0  0  35  0  35	407  Westb. RT  30  0  0  0  10  10  10  10  10  10  1	110  110  110  110  110  110  110  110	212  proproach LT  22  0 0 22  22  22	Northb RT 19 0 0 0 19 19 19	635 ound A TH 690 14 14 14 0 -3 701	DDpproach LT 119 120 3 3 126	111  Eastbc RT  34  0  0  7  41	84  bund Ap TH  10  0  0  10  10	35 12/20/21 12/20/21 44 0 0 44 9 3 56	70 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Passby Trips  Background + Project Conditions  Background + Project Conditions  Background + Project Conditions  Peak Hour:  Count Date:  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Background + Project Conditions  Intersection Number:  Traffix Node Number:  Intersection Name:  Peak Hour:  Count Date:  Scenario	CSJ ATI Total Approved Trips	0 64 3 33648 Silver AM 10/29/00vermen Southth RT 62 0 62 3 68 4 5723 68 4 4 10/27/00vermen Southth RT	0 636  Creek F 15 Ints Sound A TH 677 102 779 6 -3 782 II Expy 8 Ints Sound A TH	199  pproach LT  35  0  0  35  0  35  pproach LT  pproach LT	Westb   RT	110 bund Ap TH 8 0 0 0 8 8 0 TH TH	212  pproach LT  22  0 0 22  22  22  LT  pproach LT	Northb RT 19 0 0 0 19 19 Northb RT	635  ound A  TH  690  14  14  704  0  -3  701  ound A  TH	18 D D D D D D D D D D D D D D D D D D D	111  Eastbc of Ar  34  0  0  7  41  Eastbc AR  Eastbc AR  Eastbc AR  Eastbc	84  bund Ap TH  0 0 0 10 0 10 Th	35  12/20/21  12/20/21  44  9  3  56  12/20/21	70 17 11 18 2 1 18
Passby Trips  Background + Project Conditions  Background + Project Conditions  Intersection Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Background + Project Conditions  Intersection Number: Intersection Number: Intersection Name: Peak Hour: Count Date:	CSJ ATI Total Approved Trips	0 64 3 3 3648 Silver AM 10/29/ OVERNE 62 62 62 68 68 68	0 636  Creek F 15 115 102 102 779 6 -3 782  Is   Expy a	pproach  35  0  0  35  0  0  35  pproach  35	407  Westbington  0  0  0  30  30  westbington  7  Treek R	110  110  110  110  110  110  110  110	212  pproach LT  22  0 0 22  22  22	Northb RT 19 0 0 0 19 19 19 Northb	635  ound A  TH  690  14  14  704  0  -3  701	18 D D D D D D D D D D D D D D D D D D D	111  Eastburg Ar  0	84  bund Ap TH  0 0 10 10 10 bund Ap TH  continues the second of the sec	35 12/20/21 proach LT 44 0 0 44 9 3 56	24 17 18 18 18 18 18 18 18 18 18 18 18 18 18
Passby Trips  Background + Project Conditions  Background + Project Conditions  Intersection Number: Intersection Name: Peak Hour: Count Date:  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Passby Trips  Background + Project Conditions  Intersection Number:	CSJ ATI Total Approved Trips  Me	0 64 3 3 3648 Silver AM 10/29/ 00veme Southth RT 62 0 62 3 3 68 4 5723 68 4 10/27/ 238 0 0	0 636  Creek F 15 Ints Doound A TH 677  102 779 6 -3 782  II Expy a Its Doound A TH 2252 61 61	199  199  199  100  100  100  100  100	Westb:   RT   30   30   30   30	110  bund Ap TH  8  0 0 8  0 0 8  TH  2537	212  pproach LT  22  0 0 22  0 22  LT  123	Northb RT 19 0 0 0 19 19	0und A TH 690 14 14 0 -3 701 0und A TH 449	18 D D D D D D D D D D D D D D D D D D D	111  Eastbc of Ar  34  0  0  7  41  Eastbc of Ar  311  333  33	84  84  bund Ap TH  10  0  0  10  10  10  10  10  10  10	35  12/20/21  12/20/21  44  9  3  56  12/20/21  17  13  13	24 17 11 18 2 18 18 18 18 44
Passby Trips  Background + Project Conditions  Background + Project Conditions  Pass Hour:  Count Date:  Background Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Background + Project Conditions  Project Conditions	CSJ ATI Total Approved Trips	0 64 3 3 3648 Silver AM 10/29/ overne 62 62 62 68 4 5723 Capitc AM 10/27/ overne RT 238	0 636  Creek F 15 Ints Soound A TH 102 779 6 -3 782  Is Expy a 15 TH 2252	199  pproach LT  35  0  0  35  0  35  LT  49  19	Westb:   RT	110  ound Ar TH  8  0  0  8  0  0  8  TH  110	212  proach LT  22  0 0 22  0 22  123  123	Northb RT	00und A TH 690 14 14 0 -3 701	18 D D D D D D D D D D D D D D D D D D D	111  Eastbc RT  34  0  7  41  Eastbc RT  311  333	84  bund Ap TH  0 0 10 0 10 10 2 10 10 10 10 10 10 10 10 10 10 10 10 10	35  12/20/21  proach LT  44  9 3  56  12/20/21  511  13	70 17 11 18 2 1 18

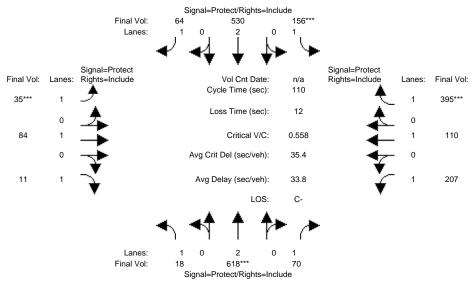
Intersection Number: Traffix Node Number:		1 5724												
ntersection Name:		Capito	I Ехру а	and Abor	n Rd									
Peak Hour: Count Date:		PM 10/03/	12							D	ate of Ar	nalysis:	12/20/21	
		South		pproach	Westh	ound A	pproach	Northh	ound A	oproach	Faetho	und Ar	proach	
Scenario		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	To
Existing Conditions		206	1592	341	84	371	944	1363	1433	209	138	514	268	74
Approved Project Trips														
	CSJ ATI Total Approved Trips	11	147 147	164 164	189 189	46 46	58 58	11	144 144	0	0	60 60	21	8:
Background Conditions		217	1739	505	273	417	1002	1374	1577	209	138	574	289	83
Proposed Project Trips Passby Trips		10 0	10 0	0	0	10 0	0	0	10 0	0	0	10 0	10 0	6
Background + Project Conditions		227	1749	505	273	427	1002	1374	1587	209	138	584	299	83
Intersection Number:		2												
Traffix Node Number: Intersection Name:		3216	d/Silver	r Creek F	A and A	orn Pr	4							
Peak Hour:		PM		Cleek	and A	JOIN IX	•			D	ate of Ar	nalysis:	12/20/21	
Count Date:	Me	03/09/ ovemer	nts											
Scenario		Southb RT	ound A	pproach LT	Westbe RT	ound A	oproach LT	Northb RT	ound A	oproach LT	Eastbo RT	ound Ap	proach LT	То
Existing Conditions		105	599	291	257	147	176	223	584	25	22	112	42	25
Approved Project Trips														
	CSJ ATI Total Approved Trips	0	14 14	18 18	47 47	0	0	1	103 103	0	0	0	0	1.
Background Conditions		105	613	309	304	147	176	224	687	25	22	112	42	27
Proposed Project Trips Passby Trips		0 0	14 0	0	0	0 0	20 0	20 0	14 0	0	0	0 0	0	6
ασουγ Τημο														
Background + Project Conditions  ntersection Number: Traffix Node Number:		3 3648	627	309	304	147	196	244	701	25	22	112	42	
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour:		3 3648 Silver PM 10/29/	Creek F	309 Rd and Le			196	244	701				12/20/21	
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:	Me	3 3648 Silver PM 10/29/ ovement	Creek F 15 nts bound A	Rd and Le	exann Av Westb	e bund A	pproach	Northb	ound A	D oproach	ate of Ar	nalysis: ound Ap	12/20/21	
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peeak Hour: Count Date:  Scenario	Me	3 3648 Silver PM 10/29/ Dvemer Southb RT	Creek F 15 nts pound A TH	Rd and Le	Westbr	e ound A TH	pproach LT	Northb RT	ound A	D oproach LT	ate of Ar Eastbo	nalysis: ound Ap TH	12/20/21 proach LT	То
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions	Me	3 3648 Silver PM 10/29/ ovement	Creek F 15 nts bound A	Rd and Le	exann Av Westb	e bund A	pproach	Northb	ound A	D oproach	ate of Ar	nalysis: ound Ap	12/20/21	То
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions	M. CSJ ATI	3 3648 Silver PM 10/29/ Dvemer Southb RT	Creek F 15 nts pound A TH	Rd and Le	Westbr	e ound A TH	pproach LT	Northb RT	ound A	D oproach LT	ate of Ar Eastbo	nalysis: ound Ap TH	12/20/21 proach LT	<u>To</u>
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips	M.	3 3648 Silver PM 10/29/DVEMEN Southb RT 130	Creek F  15  nts  bound A  TH  550	epproach LT  88	Westbook RT 56	e Dund A TH 46 0	pproach LT 94	Northb RT 28	ound A TH 490 102 102	Deproach LT 247	Eastbook RT 81	ound Ap TH 22 0 0	12/20/21  proach LT  156  2	To 19
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions	M. CSJ ATI	3 3648 Silver PM 10/29/ Diverment Southby RT 130	Creek F  15  nts  bound A  TH  550  14  14  564	pproach LT 88 0 0	Westbr   RT	e bund A TH 46 0 0	94 1 1 95	Northb RT 28 0 0	ound A TH 490 102 102 592	D D D D D D D D D D D D D D D D D D D	Eastbook RT 81 3 3 84	ound Ap TH 22 0 0	12/20/21  pproach LT  156  2  2  158	To 15 12 12 21
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips	M. CSJ ATI	3 3648 Silver PM 10/29/DVEMEN Southb RT 130	Creek F  15  nts  bound A  TH  550	epproach LT  88	Westbook RT 56	e Dund A TH 46 0	pproach LT 94	Northb RT 28	ound A TH 490 102 102	Deproach LT 247	Eastbook RT 81	ound Ap TH 22 0 0	12/20/21  proach LT  156  2	70 19 11 11 21
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Passby Trips	M. CSJ ATI	3 3648 Silver PM 10/29/Devement Southth RT 130 0 0	Creek F  15  nts  bound A  TH  550  14  14  564  22	pproach LT 88 0 0	Westb:   RT   56   0   0   56   0	e e bound A TH 46 0 0 46 0	pproach LT 94 1 1 95	Northb RT 28 0 0 28 0	ound A TH 490 102 102 592 0	D D D D D D D D D D D D D D D D D D D	Eastbook RT 81 3 3 84 0	ound Ap TH 22 0 0 22 0	12/20/21 pproach LT 156 2 2 158 34	Too 19 12 21 7 4
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Passby Trips  Background + Project Conditions	M. CSJ ATI	3 3648 Silver PM 10/29/20vemer Southt RT 130 0 0 12 14 156	550 14 14 22 -14	Rd and Le	Westbh RT 56 0 0 56 0 0	0 0 46 0 0	94  1 1 95 0 0	Northb RT 28 0 0 0 28 0 0	ound A <sub>1</sub> TH 490 102 102 592 0 -10	D  pproach LT  247  1 1 248  10 10	Eastbo RT 81 3 3 84 0 31	ound Approximately 100 miles of the control of the	12/20/21 pproach LT 156 2 2 158 34 14	70 19 1: 1: 21 74 22
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Background + Project Conditions  Intersection Number: Traffix Node Number:	CSJ ATI Total Approved Trips	3 3648 Silveri PM 10/29/ Dovement Southit RT 130 0 0 130 12 14 156	550 14 14 14 572 572	88 0 0 88 0 0 88	Westbb RT 56 0 0 0 56 0 56	e bound Al TH 46 0 0 0 46 0 46	94  1 1 95 0 0	Northb RT 28 0 0 0 28 0 0	ound A <sub>1</sub> TH 490 102 102 592 0 -10	D  pproach LT  247  1 1 248  10 10	Eastbo RT 81 3 3 84 0 31	ound Approximately 100 miles of the control of the	12/20/21 pproach LT 156 2 2 158 34 14	70 19 1: 1: 21 74 22
Background + Project Conditions  Intersection Number: Irraffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Passby Trips  Background + Project Conditions  Intersection Number: Irraffix Node Number: Intersection Name:	CSJ ATI Total Approved Trips	3 3648 Silver 1 10/29/ Dvemer Southb RT 130 0 0 130 142 14 5723 Capito	550 14 14 14 572 572	Rd and Le	Westbb RT 56 0 0 0 56 0 56	e bound Al TH 46 0 0 0 46 0 46	94  1 1 95 0 0	Northb RT 28 0 0 0 28 0 0	ound A <sub>1</sub> TH 490 102 102 592 0 -10	DDproach LT 247 247 1 1 248 10 10 268	Eastbo RT 81 3 3 84 0 31	obund Ap TH 22 0 0 0 22 0 22	12/20/21  pproach LT  156  2  2  158  34  14  206	70 19 1: 1: 21 74 22
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Nume: Peak Hour:	CSJ ATI Total Approved Trips	3 3648 Silver In 10/29/ 10/29/ 10/29/ 10/29/ 10/29/ 10/29/ 10/29/ 11/20/	550 14 14 564 572 11 Expy 8	88 0 0 88 0 0 88	Westbb RT 56 0 0 0 56 0 56	e bound Al TH 46 0 0 0 46 0 46	94  1 1 95 0 0	Northb RT 28 0 0 0 28 0 0	ound A <sub>1</sub> TH 490 102 102 592 0 -10	DDproach LT 247 247 1 1 248 10 10 268	Eastbo RT 81 3 3 84 0 31	obund Ap TH 22 0 0 0 22 0 22	12/20/21 pproach LT 156 2 2 158 34 14	70 19 1: 1: 21 74 22
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Background + Project Conditions  Intersection Number: Intersection Number: Intersection Number: Intersection Number: Peak Hour: Count Date:	CSJ ATI Total Approved Trips	3 3648 Silver In 10/29/	550  14  14  14  564  572  I Expy 8  18  18  18  18  18  18  18  18  18	section of the sectio	Westbin   RT	0 0 46 0 46 46 0 0	94  1 1 1 95 0 0 95	Northb RT 28 0 0 0 28 28 0 0 0 Northb	ound A <sub>1</sub> H 490 102 102 592 0 -10 582	D D D D D D D D D D D D D D D D D D D	Eastbc of Ar Eastbc Eas	bund Ap TH 22 0 0 22 22 22 22 bund Ap Dund Ap Dund Ap Dund Ap	12/20/21  pproach LT  156  2  2  158  34  14  206	70 19 11: 21 77 4
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Passby Trips  Background + Project Conditions  Intersection Number: Intersection Number: Intersection Name: Peak Hour: Count Date:  Scenario	CSJ ATI Total Approved Trips	3 3648 Silver r PM 10/29// 10/	Creek F  15  15  15  15  17  16  17  17  18  18  18  18  18  18  18	ppproach LT  88  0 0 88  0 0 88  LT  Separate Silve	Westb:   RT	e e	poproach LT 94 1 1 95 0 0 0 95	Northb   RT   28   0   0   0   0   0   0   0   0   0	ound A TH 490 102 102 592 0 -10 582	D D D D D D D D D D D D D D D D D D D	Eastbc   RT	o o o o o o o o o o o o o o o o o o o	12/20/21  proach LT  156  2  2  158  34  14  206  12/20/21	70 15 1: 21 7 4 22
ntersection Number: Traffix Node Number: Intersection Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips Passby Trips Background + Project Conditions  Intersection Number: Intersection Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions	CSJ ATI Total Approved Trips	3 3648 Silver In 10/29/	550  14  14  14  564  572  18  18  18  18  18  18  18  18  18	section of the sectio	Westbin   RT	0 0 46 0 46 46 0 0	94  1 1 1 95 0 0 95	Northb RT 28 0 0 0 28 28 0 0 0 Northb	ound A <sub>1</sub> H 490 102 102 592 0 -10 582	D D D D D D D D D D D D D D D D D D D	Eastbc of Ar Eastbc Eas	bund Ap TH 22 0 0 22 22 22 22 bund Ap Dund Ap Dund Ap Dund Ap	12/20/21  pproach LT  156  2  2  158  34  14  206	70 15 11 21 22 70
ntersection Number: Traffix Node Number: Intersection Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips Passby Trips Background + Project Conditions  Intersection Number: Intersection Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions	CSJ ATI Total Approved Trips	3 3648 Silver r PM 10/29// 10/	Creek F  15  15  15  15  17  16  17  17  18  18  18  18  18  18  18	ppproach LT  88  0 0 88  0 0 88  LT  Separate Silve	Westb:   RT	e e	poproach LT 94 1 1 95 0 0 0 95	Northb   RT   28   0   0   0   0   0   0   0   0   0	ound A TH 490 102 102 592 0 -10 582	D D D D D D D D D D D D D D D D D D D	Eastbc   RT	o o o o o o o o o o o o o o o o o o o	12/20/21  proach LT  156  2  2  158  34  14  206  12/20/21	70 19 11: 11: 21: 4 22: 77 4
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Existing Conditions	CSJ ATI	3 3 3648 Silver r PM 10/29/- 20 20 20 20 20 20 20 20 20 20 20 20 20	550  14  14  564  22  -14  572  I Expy 8  18  11  1902	ppproach LT  88  0 0 88 0 0 88 LT  sppproach LT  218	Westbin   RT	e e	94  1 1 95 0 0 95 95 1 1 396	Northb   RT   28   0   0   0   0   0   0   0   0   0	ound A TH 490 102 102 592 0 -10 582 0 -10 2853	D Dopproach LT 247  1 1 10 268  D D T 729	Eastbc   RT	ound ApTH  22  0 0 22  0 22  malysis:	12/20/21  156  2  2  158  34  14  206  12/20/21  pproach LT	To 15 12 12 12 12 12 12 12 12 12 12 12 12 12
Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Background + Project Conditions  Intersection Number: Intersection Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background + Project Conditions	CSJ ATI	3 3 3648 Silver r PM 10/29/ overmer South RT 130 1256 14 1566 15723 Capito PM 11/08/ RT 1562 12 12 12	Creek F 15 1ts 1ts 1ts 150und A 17H 1550  14 14 1564  572  11 Expy 6 18 1ts 110und A 17H 11902  62 62	Rd and Le LT 88 0 0 88 0 0 88 LT T 218	Westb:   RT	90 pound Al TH 46	94  1 1 95 0 0 95 95 20 20 20 20 20 20 20 20 20 20 20 20 20	Northb RT 28 0 0 0 0 28 28 28 28 15 15 15 15 15	ound A <sub>1</sub> TH 490 102 102 592 0 -10 582 ound A <sub>1</sub> TH 2853	DDproach LT 248 Dpproach LT 729 2 2 2	Eastbc RT 3 3 3 44 115 Eastbc RT 308 3 3 3 3 3 3	ound Ap TH  22  0 0 22  22  Dund Ap TH  353	12/20/21  156  2  2  158  34  14  206  12/20/21  12/20/21  109  0  0	To 15 12 12 12 12 12 12 12 12 12 12 12 12 12
Background + Project Conditions  Intersection Number: Traffix Node Number: Intersection Name: Peak Hour: Count Date:  Scenario  Existing Conditions  Approved Project Trips  Background Conditions  Proposed Project Trips  Passby Trips	CSJ ATI	3 3 3648 Silver r PM 10/29// Dovemer Southt RT 130 0 0 130 12 14 156 4 5723 Capito PM RT 62 12 12 12 12 12	Creek F  15  hts  yound A  TH  550  14  14  564  22  -14  572  I Expy &  I E	ppproach LT  88  0 0 88 0 0 88 LT  1 218 9 9 227	Westbb	e e Dound Al TH 46 0 0 0 46 0 0 179 179 179 179 179 179 179 179 179 179	pproach 1 1 94 1 1 95 0 0 95 95 1 396 431	Northb RT 28 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ound A TH 490 102 102 592 0 -10 582 0 -17 2853 34 34 2887	D D D D D D D D D D D D D D D D D D D	Eastbc Ar	22 0 0 22 0 22 TH 353 92 92 445	12/20/21  156  2  2  158  34  14  206  12/20/21  109  0  109	700 199 122 177 444 44 45 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6

# **Appendix C**

**LOS Summary** 

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing AM

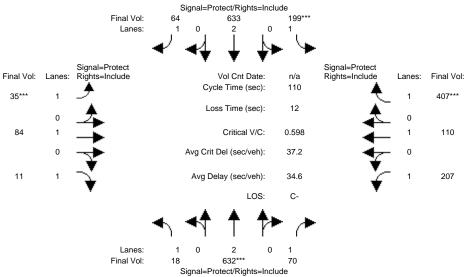
#### Intersection #3216: ABORN/KING



Approach: Movement:	L - T	- R	L - T	- R	East Bo	- R	L - T	- R
Min. Green: Y+R:	7 10 4.0 4.0	10 4.0	7 10 4.0 4.0	10 4.0	10 10 4.0 4.0	10 4.0	10 10 4.0 4.0	10 4.0
Volume Modul	e:7:45-8:45	5						
Base Vol: Growth Adj: Initial Bse: Added Vol: PasserByVol: Initial Fut: User Adj: PHF Adj: PHF Volume: Reduct Vol: Reduced Vol: PCE Adj:	18 618 0 0 18 618 1.00 1.00 1.00 1.00 18 618 0 0 18 618 1.00 1.00	70 1.00 70 0 0 70 1.00 1.00 70 0 70	156 530 1.00 1.00 156 530 0 0 0 156 530 1.00 1.00 1.00 1.00 156 530 0 0 156 530 1.00 1.00	64 1.00 64 0 0 64 1.00 1.00 64 0 64 1.00	35 84 1.00 1.00 35 84 0 0 0 35 84 1.00 1.00 1.00 1.00 35 84 0 0 35 84 1.00 1.00	11 1.00 11 0 0 11 1.00 1.00 11 0 11 0	207 110 1.00 1.00 207 110 0 0 207 110 1.00 1.00 1.00 1.00 207 110 0 0 207 110 1.00 1.00 1.00 1.00	395 1.00 395 0 395 1.00 1.00 395 0 395 1.00
MLF Adj: FinalVolume:	18 618	1.00	1.00 1.00 156 530	1.00	1.00 1.00 35 84	1.00	1.00 1.00 207 110	1.00 395
Saturation F Sat/Lane: Adjustment:	low Module: 1900 1900 0.92 1.00 1.00 2.00 1750 3800	1900 0.92 1.00 1750	1900 1900 0.92 1.00 1.00 2.00 1750 3800	1900 0.92 1.00 1750	1900 1900 0.92 1.00 1.00 1.00 1750 1900	1900 0.92 1.00 1750	1900 1900 0.92 1.00 1.00 1.00 1750 1900	1900 0.92 1.00 1750
Capacity Ana Vol/Sat: Crit Moves: Green Time:	lysis Modul 0.01 0.16  ****  14.5 30.0 0.08 0.60 41.9 34.8 0.1 1.0 0.0 0.0 1.00 1.00 42.0 35.7 1.00 1.00 42.0 35.7 D D+ 1 9	30.0 0.15 30.3 0.1 0.0 1.00 30.5 1.00 30.5	0.09 0.14 **** 16.4 31.9 0.60 0.48 43.7 32.2 3.7 0.3 0.0 0.0 1.00 1.00 47.4 32.6 1.00 1.00 47.4 32.6 D C- 6 8	0.04 31.9 0.13 28.8 0.1 0.0 1.00 28.9 1.00 28.9	0.02 0.04 ****  10.0 22.4 0.22 0.22 46.4 36.5 0.7 0.3 0.0 0.0 1.00 1.00 47.1 36.8 1.00 1.00 47.1 36.8 D D+ 1 2	0.01 22.4 0.03 35.1 0.0 0.0 1.00 35.1 1.00 35.1 D+		0.23 **** 41.6 0.60 27.5 1.5 0.0 1.00 29.0 1.00 29.0 C 11

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background AM

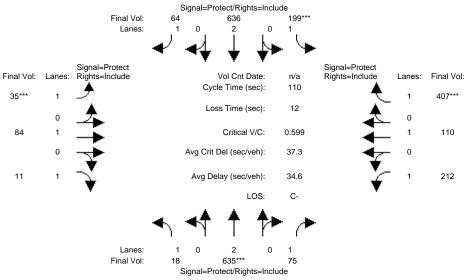
#### Intersection #3216: ABORN/KING



			Signal=I	Protect/Rig	hts=Include	•						
Approach:	No	rth Bo	und	Soi	ıth Bo	und	E	ast Bo	und	We	est Bo	und
Movement:	L ·	- T	- R	L ·	- T	- R	L ·	- T	- R	L ·	- T	- R
Min. Green:	7	10		7	10		1,0	10	10	10	10	10
Y+R:		4.0			4.0			- · ·	4.0	4.0		4.0
Volume Modul												
Base Vol:	18		70	199	633	64	35	84	11	207	110	407
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		632	70	199	633	64	35	84	11	207	110	407
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0
Initial Fut:			70	199	633	64	35		11	207	110	407
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:	18	632	70	199	633	64	35	84	11	207	110	407
Reduct Vol:	0		0	0	0	0	0	0	0	0	0	0
Reduced Vol:		632	70	199	633	64	35	84	11	207	110	407
PCE Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
MLF Adj:		1.00	1.00	1.00		1.00		1.00	1.00	1.00		1.00
FinalVolume:		632	70		633	64	35	84	11	207	110	407
Saturation F												
Saturation F. Sat/Lane:		1900	1900	1 9 0 0	1900	1900	1 9 0 0	1900	1900	1 0 0 0	1900	1900
	0.92			0.92		0.92		1.00	0.92		1.00	0.92
Lanes:		2.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00
Final Sat.:		3800	1750		3800	1750		1900	1750		1900	1750
Capacity Ana			,	'		'	1		'	1		'
Vol/Sat:	_	0.17	0.04	0.11	0.17	0.04	0.02	0.04	0.01	0.12	0.06	0.23
Crit Moves:		***		***			****					****
	13.3	28.6	28.6	19.5	34.8	34.8	10.0	21.7	21.7	28.2	39.9	39.9
Volume/Cap:			0.15		0.53	0.12		0.22	0.03		0.16	0.64
Uniform Del:			31.4		30.9	26.7		37.1	35.7		23.7	29.1
IncremntDel:			0.2	4.5	0.4	0.1	0.7	0.3	0.0	0.8		2.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:			31.6		31.3	26.8		37.4	35.7		23.8	31.3
User DelAdi:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:			31.6	46.5		26.8		37.4	35.7		23.8	31.3
LOS by Move:			C	D	C	C	D		D+		C	C
_	1		2	8	9	2			0	- 6		12
Note: Queue							lane					
~	-1					. 1						

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Prj AM

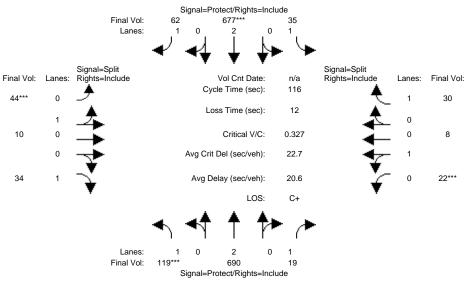
#### Intersection #3216: ABORN/KING



Approach:	No	rth Bo	ound	Soi	uth Bo	und	E	ast Bo	und	We	est Bo	und
Movement:	L	- T	- R	L ·	- T	- R	L ·	- T	- R	L ·	- T	- R
Min. Green:		10								•	 10	10
Y+R:		4.0	4.0		4.0	10 4.0	4.0	4.0	4.0		4.0	4.0
Volume Modul	e:											
Base Vol:		632		199		64	35		11	207		407
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		632	70	199	633	64	35	84	11	207	110	407
Added Vol:	0		5	0	3	0	0		0	5	0	0
PasserByVol:			0	0	0	0	0	0	0	0	0	0
Initial Fut:			75	199	636	64	35	84	11	212	110	407
User Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:		635	75	199	636	64	35	84	11	212	110	407
Reduct Vol:			0	0	0	0	0		0	0	0	0
Reduced Vol:			75	199		64	35		11	212	110	407
PCE Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
MLF Adj:			1.00			1.00		1.00	1.00	1.00		1.00
FinalVolume:				199		64		84	11	212		407
Saturation F												
Sat/Lane:		1900		1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:					1.00	0.92		1.00	0.92		1.00	0.92
Lanes:			1.00	1.00		1.00		1.00	1.00		1.00	1.00
Final Sat.:					3800	1750		1900	1750		1900	1750
Capacity Ana	lysis	Modul	e:									
Vol/Sat:	0.01	0.17	0.04	0.11	0.17	0.04	0.02	0.04	0.01	0.12	0.06	0.23
Crit Moves:		***		****			****					****
Green Time:	13.3	28.6	28.6	19.5	34.9	34.9	10.0	21.4	21.4	28.5	39.9	39.9
Volume/Cap:	0.09	0.64	0.16	0.64	0.53	0.12	0.22	0.23	0.03	0.47	0.16	0.64
Uniform Del:	43.0	36.1	31.4	42.0	30.8	26.6	46.4	37.4	35.9	34.4	23.7	29.1
IncremntDel:	0.2	1.4	0.2	4.5	0.4	0.1	0.7	0.3	0.0	0.8	0.1	2.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	43.2	37.6	31.6	46.5	31.3	26.7	47.1	37.7	36.0	35.1	23.8	31.4
User DelAdj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.2	37.6	31.6	46.5	31.3	26.7	47.1	37.7	36.0	35.1	23.8	31.4
LOS by Move:	D	D+	С	D	С	С	D		D+	D+	С	С
HCM2kAvgQ:	1	9	2	8	9	2	1	2	0	6	2	12
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane					

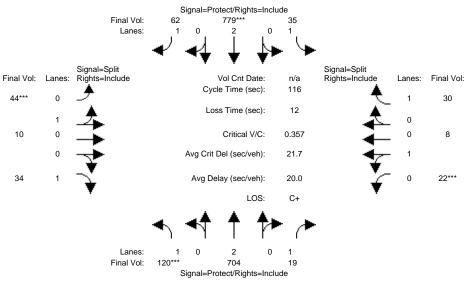
#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing AM

#### Intersection #3648: LEXANN/SILVER CREEK



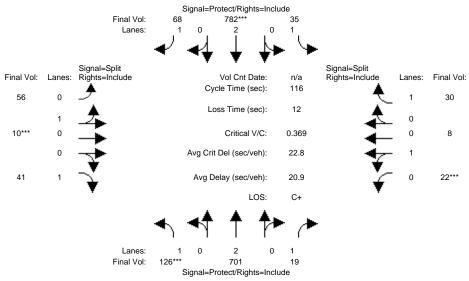
			Signal=	Protect/Rig	hts=Include	•						
Approach:	No	rth Bo	und	Soi	ıth Bo	und	E	ast Bo	und	We	est Bo	und
Movement:	L .	- T	- R	L ·	- T	- R	L ·	- T	- R	L ·	- T	- R
Min. Green:	7	10	10	7	10	10	1,0	10	10	10	10	10
Y+R:		4.0	4.0		4.0			4.0	4.0	4.0		4.0
Volume Modul												
Base Vol:	119	690	19	35	677	62	44	10	34	22	8	30
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		690	19	35	677	62	44	10	34	22	8	30
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0
Initial Fut:			19	35	677	62	44	10	34	22	8	30
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:	119	690	19	35	677	62	44	10	34	22	8	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:		690	19	35	677	62	44	10	34	22	8	30
PCE Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00
FinalVolume:		690	19	35		62	44	10	34	. 22	8	30
Saturation F			•									
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
	0.92		0.92		1.00	0.92		0.95	0.92		0.95	0.92
Lanes:	1.00		1.00		2.00	1.00		0.19	1.00		0.27	1.00
Final Sat.:		3800	1750		3800	1750	1467		1750	1320		1750
Capacity Ana	lysis	Modul	e:									
Vol/Sat:	_	0.18	0.01	0.02	0.18	0.04	0.03	0.03	0.02	0.02	0.02	0.02
Crit Moves:	****				***		****			****		
Green Time:	23.1	62.9	62.9	20.9	60.6	60.6	10.2	10.2	10.2	10.0	10.0	10.0
Volume/Cap:	0.34	0.33	0.02	0.11	0.34	0.07	0.34	0.34	0.22	0.19	0.19	0.20
Uniform Del:	39.9	14.9	12.3	39.8	16.1	13.7	49.7	49.7	49.2	49.3	49.3	49.3
<pre>IncremntDel:</pre>	0.6	0.1	0.0	0.2	0.1	0.0	1.3	1.3	0.7	0.6	0.6	0.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	40.5	15.0	12.3	39.9	16.2	13.7	51.0	51.0	49.9	49.9	49.9	49.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.5	15.0	12.3	39.9	16.2	13.7	51.0	51.0	49.9	49.9	49.9	49.9
LOS by Move:	D		В	D	В	В	D-	_	D	D	D	D
HCM2kAvgQ:	4		0	1	7	1	2		1	1	1	1
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane	•				

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background AM



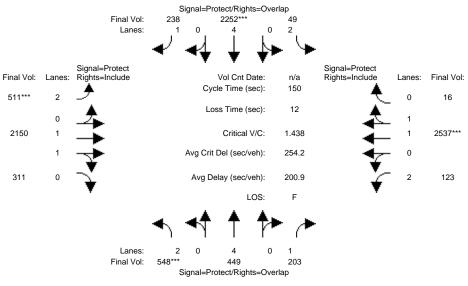
Signal=Protect/Rights=Include													
Approach:	No	rth Bo	und	Soi	uth Bo	und	Ε	ast Bo	und	We	est Bo	und	
Movement:	L	- T	- R	L -	- T	- R	L ·	- T	- R	L ·	- T	- R	
Min. Green:						10						10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module													
Base Vol:	120	704	19	35	779	62	44	10	34	22	8	30	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:			19	35	779	62	44	10	34	22	8	30	
Added Vol:			0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	120	704	19	35	779	62	44	10	34	22	8	30	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume: Reduct Vol:	120	704	19	35	779	62	44	10	34	22	8	30	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	120	704	19	35		62	44	10	34	22	8	30	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:						1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:				35		62	44		34	22		30	
Saturation F.			,										
		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92			0.92	0.95	0.95	0.92	0.95	0.95	0.92	
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.81	0.19	1.00	0.73	0.27	1.00	
Final Sat.:					3800	1750		333	1750		480	1750	
Capacity Ana													
Vol/Sat:	_			0 02	0.21	0.04	0 03	0 03	0.02	0 02	0.02	0.02	
Crit Moves:		0.13	0.01	0.02	****	0.04	****	0.03	0.02	****	0.02	0.02	
Green Time:	21.1	63.4	63.4	20.6	62.9	62.9	10.0	10.0	10.0	10.0	10.0	10.0	
Volume/Cap:	0.38	0.34	0.02	0.11	0.38	0.07	0.35	0.35	0.23	0.19	0.19	0.20	
Uniform Del:	41.7	14.7	12.1	40.0	15.3	12.6	49.9	49.9	49.4	49.3	49.3	49.3	
IncremntDel:	0.8	0.1	0.0	0.2	0.1	0.0	1.4	1.4	0.8	0.6	0.6	0.7	
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Delay Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Delay/Veh:	42.5	14.8	12.1	40.2	15.4	12.6	51.3	51.3	50.2	49.9	49.9	49.9	
User DelAdj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:			12.1	40.2	15.4	12.6	51.3	51.3	50.2	49.9	49.9	49.9	
LOS by Move:			В	D	В	В	D-	D-	D	D	D	D	
	4		0	1	8	1	2	2	1	1	1	1	
Note: Queue			the n	umber	of ca	rs per							

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Prj AM



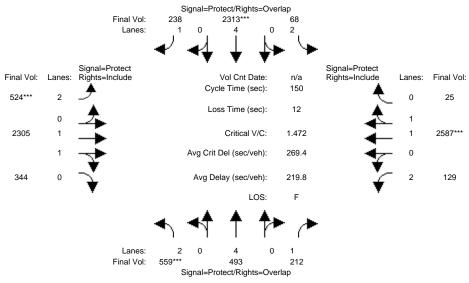
Signal=Protect/Rights=Include													
Approach:	No	rth Bo	und	Soi	uth Bo	und	Ε	ast Bo	und	We	est Bo	und	
Movement:	L	- T	- R	L -	- T	- R	L ·	- T	- R	L ·	- T	- R	
Min. Green:						10						10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module			ı	I		ı	1		1	1		ı	
Base Vol:	120	704	19	35	779	62	44	10	34	22	8	30	
Growth Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:			19	35	779	62	44	10	34	22	8	30	
Added Vol:			0	0	6	3	9	0	0	0	-	0	
PasserByVol:	3	-3	0	0			3		7	0	0	0	
Initial Fut:	126	701	19	35	782	68	56	10	41	22	8	30	
User Adj:			1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
PHF Volume: Reduct Vol:	126	701	19	35	782	68	56	10	41	22	8	30	
			0	0		0	0		0	0		0	
Reduced Vol:			19	35		68	56	10	41	22	8	30	
PCE Adj: MLF Adj:	1.00	1.00	1.00				1.00		1.00		1.00	1.00	
						1.00	1.00		1.00		1.00	1.00	
FinalVolume:				35			56		41	22		30	
Saturation F.			,										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92			0.92	0.95	0.95	0.92	0.95	0.95	0.92	
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.85	0.15	1.00	0.73	0.27	1.00	
Final Sat.:					3800	1750			1750		480	1750	
Capacity Ana			,										
Vol/Sat:	_			0.02	0.21	0.04	0.04	0.04	0.02	0.02	0.02	0.02	
Crit Moves:		0.10	0.01	0.02	****		0.01	****	0.02	****	0.02	0.02	
Green Time:		62.6	62.6	20.5	61.5	61.5	11.0	11.0	11.0	10.0	10.0	10.0	
Volume/Cap:	0.39	0.34	0.02	0.11	0.39	0.07	0.39	0.39	0.25	0.19	0.19	0.20	
Uniform Del:	41.5	15.1	12.4	40.1	16.1	13.3	49.4	49.4	48.7	49.3	49.3	49.3	
<pre>IncremntDel:</pre>	0.8	0.1	0.0	0.2	0.1	0.0	1.5	1.5	0.8	0.6	0.6	0.7	
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Delay Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Delay/Veh:	42.2	15.2	12.4	40.3	16.2	13.3	50.8	50.8	49.5	49.9	49.9	49.9	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	42.2	15.2	12.4	40.3	16.2	13.3	50.8	50.8	49.5	49.9	49.9	49.9	
LOS by Move:	D	В	В	D	В	В	D	D	D	D	D	D	
HCM2kAvgQ:	4	7	0	1	8	1	3	3	2	1	1	1	
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane	•					

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing AM



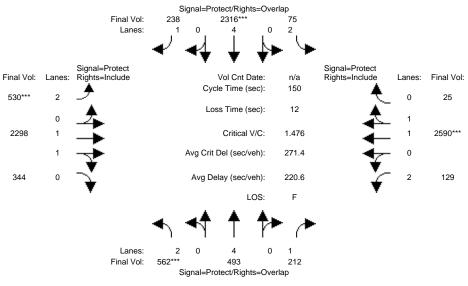
Approach:	North Bo	o.ga.	Sol	1+h Bo	uind	₽.	act B	ound	TAT.	ost Ba	aund
	L - T										
Min. Green:	7 10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0 4.0	4.0			4.0		4.0			4.0	4.0
Volume Modul											
	548 449			2252	238			311		2537	
Growth Adj:				1.00	1.00		1.00			1.00	
Initial Bse:		203		2252	238		2150			2537	16
Added Vol:	0 0	0	0		0	0				0	0
PasserByVol:		0	0	0	0	0	0		0	0	0
Initial Fut:		203	49		238		2150			2537	16
	1.00 1.00	1.00		1.00	1.00		1.00			1.00	
PHF Adj:		1.00		1.00	1.00		1.00			1.00	
PHF Volume:		203		2252	238		2150			2537	16
Reduct Vol:		0	0		0	0			0	0	0
Reduced Vol:		203		2252	238			311		2537	16
PCE Adj:		1.00		1.00	1.00		1.00			1.00	
MLF Adj:				1.00	1.00			1.00		1.00	
FinalVolume:			49		238			311		2537	16
Saturation F		-									
Saturation F			1900	1000	1900	1 9 0 0	1900	1900	1 9 0 0	1900	1900
Adjustment:			0.83		0.92		0.98			0.97	
Lanes:		1.00	2.00		1.00			0.26		1.99	
Final Sat.:	3150 7600				1750			468		3677	
Capacity Ana			'			' '			' '		'
Vol/Sat:	-		0.02	0.30	0.14	0.16	0.67	0.67	0.04	0.69	0.69
Crit Moves:	***			****		****				***	
Green Time:		37.5	18.5	30.9	47.8	16.9	81.9	81.9	7.0	72.0	72.0
Volume/Cap:	1.44 0.29	0.46	0.13	1.44	0.43			1.22		1.44	1.44
Uniform Del:	65.9 50.5	47.7	58.5	59.5	40.3	66.5	34.0	34.0	70.9	39.0	39.0
IncremntDel:	211.3 0.1	0.8	0.1	201	0.5	212.3	103	102.8	32.2	200	200.2
InitQueuDel:	0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	277.3 50.7	48.5	58.7	260	40.8	278.8	137	136.9	103.2	239	239.2
User DelAdj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	277.3 50.7	48.5	58.7	260	40.8	278.8	137	136.9	103.2	239	239.2
LOS by Move:	F D	D	E+	F	D	F	F	F	F	F	F
HCM2kAvgQ:	29 4	9	1	46	9	27	86	86	5	108	108
Note: Queue	reported is	s the n	umber	of ca	ırs pei	r lane					

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background AM



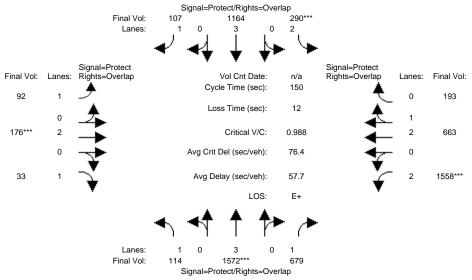
Signal=Protect/Rights=Overlap												
Approach:	No	rth Bo	und	Sot	ıth Bo	und	Εa	ast Bo	ound	We	est Bo	ound
Movement:	L ·	- T	<ul><li>R</li></ul>	L -	- T	- R	L ·	- T	- R	L ·	- T	- R
Min Croon:												
Min. Green: Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module												
			212								2587	
Growth Adj:					1.00				1.00		1.00	
Initial Bse:	559	493	212	68 0	2313	238	524	2305	344	129	2587	25
Added Vol:										0		
PasserByVol:				0		0	0					
Initial Fut:	559	493	212	68	2313	238	524	2305	344	129	2587	25
User Adj:			1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:			1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00
PHF Volume: Reduct Vol:	559	493	212	68 0	2313	238	524	2305	344	129	2587	25
									0			
Reduced Vol:				68				2305	344	129	2587	25
PCE Adj: MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
										1.00		
FinalVolume:			212							129		
Catavatian F	•											
Saturation F				1000	1000	1000	1 0 0 0	1 0 0 0	1000	1000	1000	1000
Sat/Lane:					1900				1900		1900	
Adjustment: Lanes:										0.83		
										2.00		
Final Sat.:						1750			480		3665	
Capacity Anal			,									
Vol/Sat:				0.02	0.30	0.14	0.17	0.72	0.72	0.04	0.71	0.71
Crit Moves:					***		****				****	
Green Time:		31.0	38.0	18.1	31.0	48.0	17.0	81.9	81.9	7.0	71.9	71.9
Volume/Cap:	1.47	0.31	0.48	0.18	1.47	0.43	1.47				1.47	
Uniform Del:			47.5	59.3	59.5		66.5			71.1	39.0	39.0
IncremntDel:2			0.8	0.2	216	0.5	227.1	144	143.8	40.6	215	215.5
InitOueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh: 2				59.5	275	40.7				111.7	254	254.5
User DelAdj:				1.00		1.00				1.00		1.00
AdjDel/Veh: 2										111.7		254.5
LOS by Move:												
HCM2kAvgQ:							28			6		113
Note: Queue												
	-					-						

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Prj AM



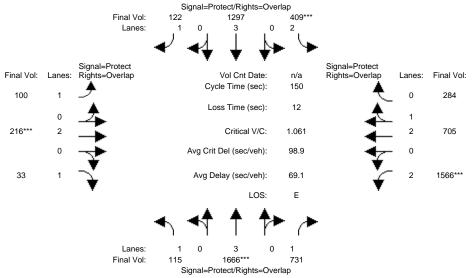
			•	rotootragi		,						
Approach:												
Movement:	L -	- T	- R	L -	- T	- R	L -	- T	- R	L -		- R
						10			10	7		10
Y+R:		4.0		4.0	4.0	4.0	4.0	4.0			4.0	4.0
Volume Modul												
Base Vol:		493	212	68	2313	238	524	2305	344	129	2587	25
Growth Adj:			1.00		1.00	1.00		1.00			1.00	
Initial Bse:		493	212		2313	238		2305	344		2587	25
Added Vol:	3	0	0	0	2	0		3	0	0		0
PasserByVol:		0	0	7	0	0		-10	0	0		0
Initial Fut:		493		75	2316	238		2298	344		2590	
User Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:		493	212	75	2316	238		2298	344		2590	25
Reduct Vol:		0	0	0	0	0	0	0	0	0		0
Reduced Vol:	562	493	212	75	2316	238	530	2298		129	2590	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	562	493	212	75	2316	238	530			129		25
Saturation F												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:				0.83		0.92					0.97	
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	2.00	1.73	0.27	2.00	1.98	0.02
Final Sat.:						1750			482		3665	
Capacity Ana	_								. = .			. = 4
Vol/Sat:		0.06	0.12	0.02				0.71	0.71	0.04		0.71
Crit Moves:					****		****				****	= 4 0
Green Time:					31.0	48.1				7.0		
Volume/Cap:				0.20		0.42					1.48	
Uniform Del:			47.5		59.5	40.1		34.0	34.0			39.1
IncremntDel:			0.8	0.3			228.9		142.2			217.4
InitQueuDel:		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0
Delay Adj:			1.00	1.00		1.00	1.00		1.00			1.00
Delay/Veh:			48.4	59.7	277		295.3			111.7		256.5
User DelAdj:				1.00					1.00			1.00
AdjDel/Veh:			48.4				295.3			111.7		256.5
LOS by Move:		Б 5	D 9			D 9			F 100		F 113	F 113
<pre>HCM2kAvgQ: Note: Queue</pre>									100	6	113	113
More. Anene	rehor(	Jeu IS	ciie II	annet	OI Ca	ıra pe.	L Talle	•				

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing AM



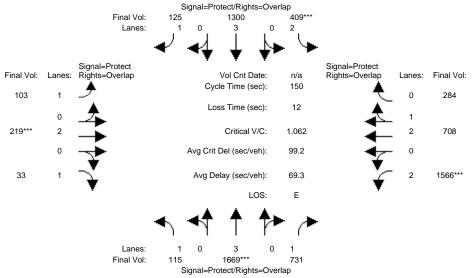
Signal - Totoot Nighto-O Totap										,		
Approach:												
Movement:						- R					- T	
			10	7				 10		7		10
Min. Green: Y+R:			4.0		4.0	4.0						
1+K:		4.0						4.0			4.0	4.0
Volume Module												
			679	290	1164	107	92	176	33	1558	663	193
Growth Adj:					1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			679		1164	107	92	176	33	1558	663	193
Added Vol:	0		0 / 5	2 0	0	0	0		0	0	0	0
PasserByVol:			0	0	0	0	0	0	0	0	0	0
Initial Fut:			679	-	1164	107	92		33	1558	663	193
	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
_	114		679		1164	107	92	176	33	1558	663	193
Reduct Vol:			0/9	290	1104	0	92	1/6		1336	003	193
Reduced Vol:			679		1164	107	92	176	0 33	1558	663	193
	1.00		1.00		1.00	1.00		1.00			1.00	1.00
MLF Adj:			1.00		1.00	1.00		1.00			1.00	1.00
-												
FinalVolume:				290						1558		193
Saturation Fl												
Saturation F. Sat/Lane:			1900	1900	1900	1900	1900	1900	1900	1 9 0 0	1900	1900
Adjustment:					1.00	0.92		1.00	0.92		0.99	0.95
Lanes:			1.00		3.00	1.00		2.00			2.30	0.70
Final Sat.:					5700	1750		3800	1750		4336	
Capacity Anal	,			1 1		ı	ı		ı	1		1
Vol/Sat:				0.09	0.20	0.06	0.05	0.05	0.02	0.49	0.15	0.15
Crit Moves:		****		****				****		***		
Green Time:		40.9	114.3	13.7	41.4	62.7	21.3	10.0	23.2	73.4	62.1	75.7
Volume/Cap:					0.74	0.15		0.69	0.12		0.37	0.30
Uniform Del:			6.9	68.2		27.0		68.5	54.6		30.4	21.7
IncremntDel:			0.3	55.9		0.1	0.9	8.1	0.2	25.6	0.1	0.1
InitQueuDel:			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:			1.00		1.00	0.87		1.00	1.00		1.00	1.00
Delay/Veh:				124.0		23.7		76.6	54.8		30.5	21.8
User DelAdj:				1.00		1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				124.0		23.7		76.6	54.8		30.5	21.8
LOS by Move:			, <b>.</b> 3		D-	23 <b>.</b> ,	E+		D-	E	C	C+
HCM2kAvqQ:	6				17	3	4		1	51		11
Note: Queue									_	0 1		
			- 0110 1		31 00			-				

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background AM



Signal=Protect/Rights=Overlap												
Approach:	No	rth Bo	ound	Sou	und	Εā	ast Bo	und	W∈	st Bo	und	
Movement:	L ·	- T	- R	L -	- T	- R	L -	- T	<ul><li>R</li></ul>	L -	- T	- R
Min. Green:												
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module				11								
Base Vol:	115	1666	731	409	1297	122	100	216	33	1566	705	284
Growth Adj:				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:			731		1297	122	100		33	1566	705	284
Added Vol:					0		0		0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	115	1666	731	409	1297	122	100	216	33	1566	705	284
User Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume: Reduct Vol:	115	1666	731		1297	122	100		33 0	1566	705	284
					0		0		0	0		0
Reduced Vol:			731			122	100		33	1566		284
PCE Adj:					1.00	1.00			1.00	1.00		1.00
MLF Adj:					1.00	1.00		1.00			1.00	1.00
FinalVolume:						122			33	1566		284
	,											
			1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:					1.00	0.92		1.00			1.00	0.95
Lanes:					3.00	1.00		2.00		2.00		0.89
Final Sat.:					5700	1750		3800			3990	1607
Capacity Anal				0 10	0 00	0 07	0 06	0 0 0	0 00	0 50	0 10	0 10
<pre>Vol/Sat: Crit Moves:</pre>				U.13		0.07	0.06	0.06	0.02	U.5U ****	0.18	0.18
Green Time:					45.6	65.0	10 /	10.0	23.2	69.2	50 Q	77.9
Volume/Cap:			0.57		0.75	0.16		0.85	0.12	1.08		0.34
Uniform Del:						25.9		69.3	54.6	40.4		21.0
IncremntDel:			0.6		1.8		1.4		0.2	47.4		0.1
InitOueuDel:			0.0		0.0	0.0		0.0	0.0	0.0		0.0
Delay Adj:			1.00			0.86		1.00	1.00	1.00		1.00
Delay/Veh:	85 0	101		134.3		22.3		92.5	54.9	87.8		21.1
User DelAdj:				1.00		1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:						22.3		92.5	54.9	87.8		21.1
LOS by Move:									D-	67.6 F		C+
HCM2kAvgQ:						3				55		13
Note: Queue									-			
	-TT-					- 1-31		-				

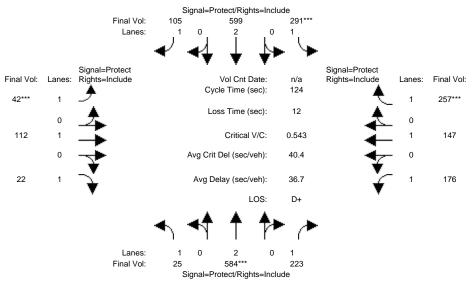
#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Prj AM



Signal=Protect/Rights=Overlap												
Approach:	No	rth Bo	ound	Soi	ıth Bo	und	Εá	ast Bo	und	W∈	est Bo	und
Movement:	L -	- T	- R	L -	- T	- R	L -	- T	- R	L -	- Т	- R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:		4.0	4.0		4.0	4.0		4.0			4.0	4.0
Volume Module												
	115		731	409	1297	122	100	216	33	1566	705	284
_	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:			731		1297	122	100	216	33	1566	705	284
Added Vol:	0	3	0	0	3	3	3	3	0	0	3	0
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0
Initial Fut:			731		1300	125	103		33	1566	708	284
User Adj:	1.00		1.00		1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:		1669	731		1300	125	103	219	33	1566	708	284
	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:			731		1300	125	103	219	33	1566	708	284
PCE Adj:		1.00	1.00		1.00	1.00		1.00			1.00	1.00
_	1.00		1.00		1.00	1.00		1.00			1.00	1.00
FinalVolume:			731		1300	125		219	33	1566	708	284
Catanatian E												
Saturation F				1000	1000	1000	1000	1000	1000	1000	1000	1000
Sat/Lane: Adjustment:		1900	1900		1900	1900 0.92		1900	1900 0.92		1900	1900 0.95
Lanes:			1.00		3.00	1.00		2.00	1.00		2.11	0.89
Final Sat.:		5700	1750		5700	1750		3800	1750		3995	1602
rillai sat												
Capacity Anal				1 1		'	ı		ı	ı		1
Vol/Sat:				0 13	0.23	0.07	0 06	0.06	0.02	0 50	0.18	0.18
Crit Moves:	0.07	****	0.12	****	0.25	0.07	0.00	****	0.02	****	0.10	0.10
Green Time:	13 2	40 7	109 9	18 1	45.7	65.4	19 7	10.0	23.2	69.2	59 4	77.5
	0.75		0.57		0.75	0.16		0.86	0.12	1.08		0.34
Uniform Del:			9.2		47.0	25.7		69.3	54.7	40.4		21.3
IncremntDel:			0.6	68.6	1.9	0.1		25.1	0.2		0.1	0.1
InitQueuDel:		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:			1.00		0.98	0.85		1.00	1.00		1.00	1.00
Delay/Veh:	85.2		9.8	134.6	48.0	22.0	61.5	94.5	54.9	88.1	33.4	21.4
User DelAdi:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	85.2	102	9.8	134.6	48.0	22.0		94.5	54.9	88.1	33.4	21.4
LOS by Move:			A	F	D	C+	E	F	D-	F	C-	C+
HCM2kAvgQ:	6		17	17	18	3	5	6	1	55	14	13
Note: Queue			s the 1	number	of ca	rs per	lane					
						-						

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing PM

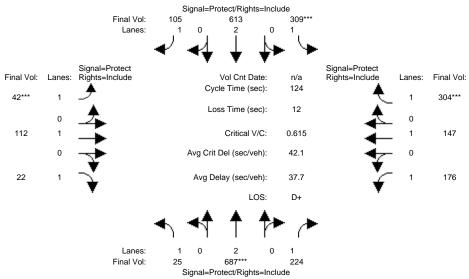
# Intersection #3216: ABORN/KING



Approach: Movement:	L -	- T	- R	L -	- Т	- R	L -	- T	ound - R	L -	- Т	- R
Min. Green: Y+R:	7 4.0	10 4.0	10 4.0	7 4.0	10 4.0	10 4.0	10 4.0	10 4.0	10 4.0	10 4.0	10 4.0	10 4.0
Volume Module	•			1		1	I		I	ı		ı
Base Vol:	25	584	223	291	599	105	42	112	22	176	147	257
Growth Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00
Initial Bse:		584	223	291	599	105	42	112	22	176	147	257
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0
Initial Fut:		584	223	291	599	105	42	112	22	176	147	257
User Adj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj: PHF Volume:	1.00	584	1.00	291	1.00 599	1.00 105	42	1.00	1.00	1.00 176	147	1.00 257
Reduct Vol:	2.5		223	291	0	0	0	0	0	0	147	237
Reduced Vol:			223	291	599	105	42	112	22	176	147	257
PCE Adi:	1.00		1.00		1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00		1.00		1.00	1.00		1.00	1.00	1.00		1.00
FinalVolume:			223	291		105		112	22	176	147	257
			,									
Saturation Fi				1000	1000	1000	1000	1000	1000	1000	1000	1000
Sat/Lane:		1900	1900		1900	1900		1900	1900	1900		1900
Adjustment:			0.92		1.00	0.92		1.00	0.92	0.92		0.92
Lanes: Final Sat.:	1.00		1.00 1750		2.00	1.00 1750		1.00	1.00 1750	1.00 1750		1.00 1750
												1
Capacity Anal	'		'						'			'
Vol/Sat:	0.01	0.15	0.13	0.17	0.16	0.06	0.02	0.06	0.01	0.10	0.08	0.15
Crit Moves:		****		****			****					****
Green Time:	18.4	33.6	33.6	36.3	51.5	51.5		18.7	18.7	23.4		32.1
-	0.10		0.47		0.38	0.14		0.39	0.08	0.53		0.57
Uniform Del:			37.8		25.2	22.6		47.5	45.3	45.4		39.9
IncremntDel:		0.8	0.7	1.5	0.2	0.1	1.2	0.9	0.1	1.7	0.3	1.7
InitQueuDel:		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1.00		1.00		1.00	1.00		1.00	1.00	1.00		1.00
Delay/Veh: User DelAdi:			38.5		25.3	22.7		48.4	45.4 1.00	47.1 1.00		41.6 1.00
AdjDel/Veh:			38.5		25.3	22.7		48.4	45.4	47.1		41.6
LOS by Move:		59.7 D	D+	D+	23.3 C	22.7 C+	D-	D. 4	43.4 D	47.1 D	D+	41.0 D
HCM2kAvqO:	1	9	7	10	8	3	2	_	1	6	4	9
Note: Queue					-			_	_	-	=	-

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background PM

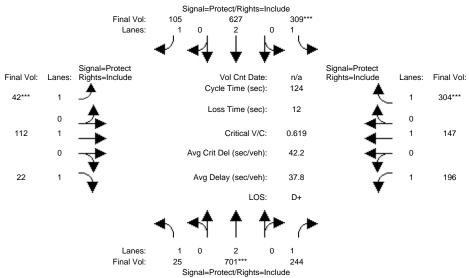
# Intersection #3216: ABORN/KING



	Signal=Protect/Rights=Include												
Approach:	No	rth Bo	und	Sot	ath Bo	und	E	ast Bo	und	West B	ound		
Movement:	L	- T	- R	L ·	- T	- R	L ·	- T	- R	L - T	- R		
Min. Green:	7		10		10			10		10 10	10		
Y+R:		4.0	4.0		4.0			4.0	4.0	4.0 4.0			
Volume Module													
Base Vol:	25		224	309	613	105	42	112	22	176 147	304		
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00 1.00	1.00		
Initial Bse:		687	224	309	613	105	42	112	22	176 147	304		
Added Vol:	0	0	0	0	0	0	0	0	0	0 0	0		
PasserByVol:	0		0	0	0	0	0	0	0	0 0	0		
Initial Fut:			224	309	613	105	42	112	22	176 147	304		
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00 1.00	1.00		
PHF Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00 1.00	1.00		
PHF Volume:	25	687	224	309	613	105	42	112	22	176 147	304		
Reduct Vol:	0		0	0	0	0	0	0	0	0 0	0		
Reduced Vol:			224	309	613	105	42	112	22	176 147	304		
PCE Adj:			1.00		1.00	1.00		1.00	1.00	1.00 1.00	1.00		
MLF Adj:		1.00	1.00	1.00		1.00		1.00	1.00	1.00 1.00	1.00		
FinalVolume:		687	224		613	105	42		22	176 147	304		
Saturation F.													
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900 1900	1900		
		1.00	0.92		1.00	0.92		1.00	0.92	0.92 1.00	0.92		
Lanes:		2.00	1.00		2.00	1.00		1.00	1.00	1.00 1.00	1.00		
Final Sat.:		3800	1750		3800	1750		1900	1750	1750 1900	1750		
Capacity Ana				'		1	ı		'	1	ı		
Vol/Sat:	_	0.18	0.13	0.18	0.16	0.06	0.02	0.06	0.01	0.10 0.08	0.17		
Crit Moves:		****		****			****		–		****		
	17.8	34.7	34.7	33.9	50.8	50.8	10.0	19.3	19.3	24.1 33.4	33.4		
Volume/Cap:			0.46		0.39	0.15		0.38	0.08	0.52 0.29	0.65		
Uniform Del:			36.9		25.7	23.0		47.0	44.8	44.8 35.9	40.1		
IncremntDel:			0.7	3.0	0.2	0.1	1.2		0.1	1.4 0.3	3.1		
InitOueuDel:		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0		
Delay Adj:			1.00		1.00	1.00		1.00	1.00	1.00 1.00	1.00		
Delay/Veh:			37.5	42.8	25.9	23.1		47.8	44.9	46.2 36.2	43.2		
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00 1.00	1.00		
AdjDel/Veh:			37.5		25.9	23.1		47.8	44.9	46.2 36.2	43.2		
LOS by Move:			D+	D	C	C	D-	D	D	D D+	D		
-	1		7	12	8	3	2	4	1	6 4	10		
Note: Queue	repor	ted is	the n	umber	of ca		lane						
_	-					-							

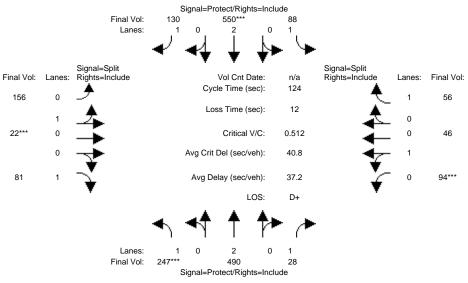
#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Prj PM

# Intersection #3216: ABORN/KING



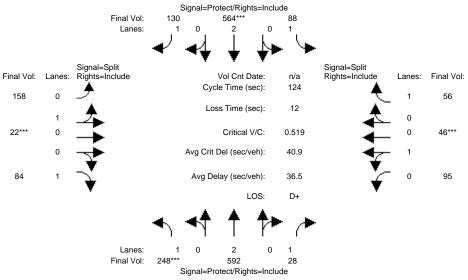
Signal=Protect/Rights=Include													
Approach:	No	rth Bo	und	und	Εā	ast Bo	und	We	st Bo	und			
Movement:	L	– T	- R	L .	- T	- R	L -	- T	- R	L -	- T	- R	
 Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module													
Base Vol:	25	687	224	309	613	105	42	112	22	176	147	304	
Growth Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse: Added Vol:	25	687	224		613	105	42		22	176	147	304	
Added Vol:	0	14	20	0	14	0	0	0	0	20	0	0	
PasserByVol:	0	0	0	0	0	0	0		0	0	0	0	
Initial Fut:	25	701	244	309	627	105	42	112	22	196	147	304	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume: Reduct Vol:	25	701	244	309	627	105	42	112	22	196	147	304	
Reduct Vol:	0	0	0	0	0	0	0	0		0	0	0	
Reduced Vol:				309		105	42	112	22	196	147	304	
PCE Adj: MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00		1.00		1.00		1.00	
				1.00		1.00						1.00	
FinalVolume:				309			42		22		147	304	
Saturation F													
Sat/Lane:				1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:						0.92		1.00	0.92	0.92			
Lanes:				1.00		1.00		1.00	1.00	1.00		1.00	
Final Sat.:						1750		1900	1750	1750		1750	
Capacity Ana	lysis	Modul	.e:										
Vol/Sat:			0.14		0.17	0.06		0.06	0.01	0.11	0.08	0.17	
Crit Moves:				****			****					****	
Green Time:			35.2		51.3	51.3		18.1	18.1	25.1		33.1	
Volume/Cap:			0.49		0.40	0.14		0.40	0.09	0.55		0.65	
Uniform Del:			37.0	39.9		22.7		48.1	45.8	44.4		40.3	
IncremntDel:			0.8	3.2		0.1	1.2			1.9		3.2	
<pre>InitQueuDel:</pre>			0.0	0.0		0.0	0.0	0.0		0.0		0.0	
Delay Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	
Delay/Veh:			37.7		25.7	22.8		49.1	46.0	46.3		43.5	
User DelAdj:					1.00	1.00		1.00	1.00	1.00		1.00	
AdjDel/Veh:				43.1		22.8		49.1	46.0	46.3		43.5	
LOS by Move:				D		C+				D		D	
	1		8	12	8				1	7	4	10	
Note: Queue	repor	ted is	the n	umber	oi ca	rs per	lane	•					

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing PM



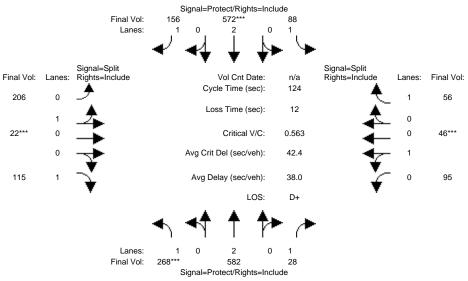
			Signal=	Protect/Rig	hts=Include							
Approach:	No	rth Bo	und	Soi	uth Bo	und	Εa	ast Bo	und	We	est Bo	und
Movement:	L ·	- T	- R	L ·	- T	- R	L -	- T	- R	L -	- T	- R
Min. Green:		10	10		10			10	10	10		10
Y+R:		4.0	4.0		4.0			4.0	4.0	4.0		4.0
Volume Module												
Base Vol:	247		28	88	550	130	156	22	81	94	46	56
_	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		490	28	88	550	130	156	22	81	94	46	56
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:		0	0	0	0	0	0	0	0	0	0	0
Initial Fut:			28	88	550	130	156	22	81	94	46	56
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	247	490	28	88	550	130	156	22	81	94	46	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	247	490	28	88	550	130	156	22	81	94	46	56
_		1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:			28	88	550	130	156	22	81	94	46	56
Saturation F												
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900
_		1.00	0.92			0.92	0.95	0.95	0.92	0.95	0.95	0.92
	1.00		1.00		2.00	1.00		0.12	1.00		0.33	1.00
Final Sat.:		3800	1750		3800	1750	1578		1750		591	1750
	,											
Capacity Anal	_											
Vol/Sat:		0.13	0.02	0.05	0.14	0.07	0.10	0.10	0.05		0.08	0.03
OTTO HOVOD.	****				****			****		****		
		48.1	48.1		35.0	35.0		23.9	23.9		18.8	18.8
Volume/Cap:		0.33	0.04		0.51	0.26		0.51	0.24		0.51	0.21
Uniform Del:			23.6		37.3	34.5		44.8	42.3	48.4		46.1
IncremntDel:			0.0	0.6	0.4	0.3	1.3		0.4	1.6		0.4
InitQueuDel:		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Delay/Veh:		26.8	23.6		37.7	34.8		46.1	42.7		50.0	46.5
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:			23.6		37.7	34.8		46.1	42.7		50.0	46.5
LOS by Move:			C	D	D+	C-	D	D	D	D	D	D
J ~	9		1	, 3	8	4	7		3	6	6	2
Note: Queue	repor	ted is	the n	umber	oi ca	rs per	⊥ane	•				

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background PM



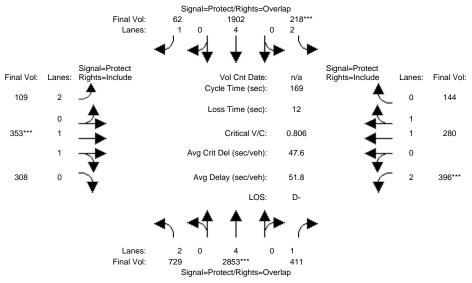
Signal=Protect/Rights=Include											
Approach:	North B	ound	South B	ound	Εā	ast Bo	und	West Bound			
Movement:	L - T	- R L	- T	- R	L -	- T	- R	L -	Т	- R	
Min. Green:	7 10	10	7 10	10	10	10	10	10	10	10	
Y+R:	4.0 4.0	4.0 4	.0 4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module	e:										
Base Vol:	248 592	28	88 564	130	158	22	84	95	46	56	
Growth Adj:	1.00 1.00	1.00 1.	00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	248 592	28	88 564	130	158	22	84	95	46	56	
Added Vol:	0 0	0	0 0	0	0	0	0	0	0	0	
PasserByVol:	0 0	0	0 0	0	0	0	0	0	0	0	
Initial Fut:	248 592	28	88 564	130	158	22	84	95	46	56	
User Adj:	1.00 1.00	1.00 1.	00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00 1.00	1.00 1.	00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	248 592	28	88 564	130	158	22	84	95	46	56	
Reduct Vol:	0 0	0	0 0	0	0	0	0	0	0	0	
Reduced Vol:			88 564	130	158	22	84	95	46	56	
PCE Adj:	1.00 1.00	1.00 1.	00 1.00	1.00	1.00	1.00	1.00	1.00		1.00	
MLF Adj:	1.00 1.00	1.00 1.	00 1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:			88 564	130	158	22	84	95	46	56	
Saturation F											
Sat/Lane:	1900 1900		00 1900			1900	1900	1900		1900	
_	0.92 1.00		92 1.00			0.95	0.92	0.95		0.92	
Lanes:	1.00 2.00		00 2.00			0.12	1.00	0.67		1.00	
Final Sat.:	1750 3800		50 3800			220	1750	1213	587	1750	
Capacity Ana	_		05 0 15	0 0 0	0 10	0 10	0 05	0 00		0 00	
Vol/Sat:	0.14 0.16	0.02 0.	05 0.15	0.07	0.10	0.10	0.05	0.08	0.08 ****	0.03	
Crit Moves:	****	F0 0 10	****	0.5.5	00 0	****	000			10 =	
Green Time:	33.9 50.9		.4 35.5			23.9	23.9	18.7		18.7	
Volume/Cap:	0.52 0.38		34 0.52	0.26		0.52	0.25	0.52		0.21	
Uniform Del:			.3 37.1	34.1		44.9	42.4	48.5		46.2	
IncremntDel:			.8 0.4	0.3	1.4	1.4	0.4	1.8	1.8	0.4	
InitQueuDel:			.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	1.00 1.00		00 1.00			1.00	1.00	1.00		1.00	
Delay/Veh:	39.2 25.7		.1 37.5	34.4		46.3	42.8	50.3		46.6	
User DelAdj:			00 1.00	1.00		1.00	1.00	1.00		1.00	
AdjDel/Veh:			.1 37.5	34.4		46.3	42.8	50.3		46.6	
LOS by Move:			D D+ 3 9		D 7	D 7	D 3	D	D	D	
HCM2kAvgQ:	9 8						3	6	6	2	
Note: Queue	reported 1	s the numb	er or c	ars per	_ane	•					

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Prj PM



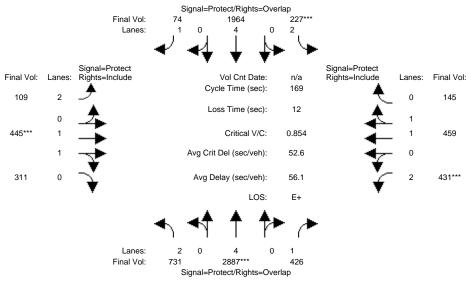
Signal=Protect/Rights=Include													
Approach:	No	rth Bo	und	Soi	ath Bo	und	Εċ	ast Bo	und	West Bound			
Movement:	L ·	- T	- R	L .	- T	- R	L ·	- T	- R	L - T	- R		
Min. Green:	7	10	10	7	10	10	10	10	10	10 10	10		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0 4.0	4.0		
Volume Module	≘:												
Base Vol:	248	592	28	88	564	130	158	22	84	95 46	56		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00		
Initial Bse:	248	592	28	88	564	130	158	22	84	95 46	56		
Added Vol:	10	0	0	0	22	12	34	0	0	0 0	0		
PasserByVol:	10	-10	0	0	-14	14	14	0	31	0 0	0		
Initial Fut:	268	582	28	88	572	156	206	22	115	95 46	56		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00		
PHF Volume:	268	582	28	88	572	156	206	22	115	95 46	56		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0 0	0		
Reduced Vol:	268	582	28	88	572	156	206	22	115	95 46	56		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00		
FinalVolume:			28	88	572	156	206	22	115	95 46	56		
Saturation F	low Mo	odule:											
Sat/Lane:	1900	1900	1900	1900	1900	1900		1900	1900	1900 1900	1900		
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.95	0.95	0.92	0.95 0.95	0.92		
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	0.90	0.10	1.00	0.67 0.33	1.00		
Final Sat.:	1750	3800	1750		3800	1750	1626		1750	1213 587	1750		
Capacity Ana	lysis	Modul	e:										
Vol/Sat:		0.15	0.02	0.05	0.15	0.09	0.13	0.13	0.07	0.08 0.08	0.03		
Crit Moves:	****				****			****		****			
Green Time:	33.7	48.9	48.9	18.0	33.1	33.1	27.9	27.9	27.9	17.2 17.2	17.2		
Volume/Cap:		0.39	0.04	0.35	0.56	0.33		0.56	0.29	0.56 0.56	0.23		
Uniform Del:	38.8	26.9	23.1	47.7	39.2	36.5	42.6	42.6	39.9	49.9 49.9	47.5		
<pre>IncremntDel:</pre>		0.2	0.0	0.8	0.7	0.4	1.8	1.8	0.4	2.9 2.9	0.5		
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0		
Delay Adj:	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00 1.00	1.00		
Delay/Veh:		27.1	23.2	48.5	39.9	37.0		44.5	40.3	52.8 52.8	48.0		
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00 1.00	1.00		
AdjDel/Veh:		27.1	23.2		39.9	37.0		44.5	40.3	52.8 52.8	48.0		
LOS by Move:			С	D	D	D+	D	_	D	D- D-	D		
HCM2kAvgQ:	10	8	1	3	9	5	9	-	4	6 6	2		
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane	•					

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing PM



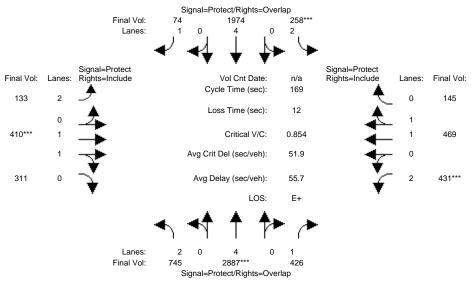
Signal=Protect/Rights=Ovenlap													
Approach:	No	rth Bo	ound	Soi	ıth Bo	und	Εá	ast Bo	und	West Bound			
Movement:	L ·	- T	- R	L -	- T	- R	L -	- T	- R	L -	- T	- R	
Min. Green:	41	69	69	18	46	46	14	37	37	21	44	44	
Y+R:	6.2	5.8	5.8	6.3	5.8	5.8	5.8	5.8	5.8	5.9	6.0	6.0	
Volume Module	e:5:00	0 - 6	:00 PM										
Base Vol:	729	2853	411	218	1902	62	109	353	308	396	280	144	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	729	2853	411	218	1902	62	109	353	308	396	280	144	
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	729	2853	411	218	1902	62	109	353	308	396	280	144	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	729	2853	411	218	1902	62	109	353	308	396	280	144	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	729	2853	411	218	1902	62	109	353	308	396	280	144	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	729	2853	411	218	1902	62	109	353	308	396	280	144	
Saturation F	low Mo	odule	:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.83	1.00	0.92	0.83	1.00	0.92	0.83	1.00	0.95	0.83	0.99	0.95	
Lanes:	2.00	4.00	1.00	2.00	4.00	1.00	2.00	1.04	0.96	2.00	1.30	0.70	
Final Sat.:			1750	3150	7600	1750	3150	1975	1723	3150	2442	1256	
Capacity Ana	lysis	Modu	le:										
Vol/Sat:	0.23	0.38	0.23	0.07	0.25	0.04	0.03	0.18	0.18	0.13	0.11	0.11	
Crit Moves:		****		***				****		****			
Green Time:	44.5	76.4	102.0	18.0	49.9	65.0	15.1	37.0	37.0	25.6	47.5	47.5	
Volume/Cap:	0.88	0.83	0.39	0.65	0.85	0.09	0.39	0.82	0.82	0.83	0.41	0.41	
Uniform Del:	59.7	40.6	17.4	72.5	56.0	33.2	72.6	62.8	62.8	69.6	49.3	49.3	
<pre>IncremntDel:</pre>	10.6	1.8	0.2	4.4	3.2	0.1	0.9	6.5	6.5	11.7	0.3	0.3	
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Delay Adj:	1.00	0.83	0.57	1.00	1.06	1.12	1.00	1.00	1.00	1.00	1.00	1.00	
Delay/Veh:	70.3	35.7	10.1	76.9	62.5	37.3	73.5	69.3	69.3	81.3	49.6	49.6	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	70.3	35.7	10.1	76.9	62.5	37.3	73.5	69.3	69.3	81.3	49.6	49.6	
LOS by Move:	E	D+	B+	E-	E	D+	E	E	E	F	D	D	
HCM2kAvgQ:	24	31	7	7	24	2	4	18	18	14	9	9	
Note: Queue	report	ted is	s the n	umber	of ca	rs per	lane						

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background PM



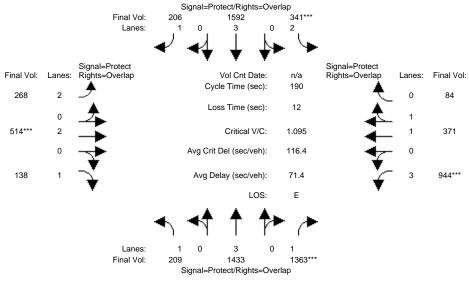
Signal=Protect/Rights=Overlap													
Approach:	No	rth Bo	und	Soi	ıth Bo	und	E	ast Bo	und	West Bound			
Movement:	L	- T	- R	L -	- T	- R	L ·	- T	- R	L -	- T	- R	
Min. Green:		69						37		21	44	44	
Y+R:	6.2	5.8	5.8	6.3	5.8	5.8	5.8	5.8	5.8	5.9		6.0	
Volume Modul													
Base Vol:		2887	426		1964	74	109	445	311	431		145	
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Initial Bse:			426		1964	74	109	445	311	431		145	
Added Vol:	0		0	0	0	0	0	0	0	0		0	
PasserByVol:			0	0	0	0	0	0	0	0	0	0	
Initial Fut:			426		1964	74	109		311	431	459	145	
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	731	2887	426	227	1964	74	109	445	311	431	459	145	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	731	2887	426	227	1964	74	109		311	431	459	145	
PCE Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00			1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:			426		1964	74		445	311	431		145	
Saturation F													
Sat/Lane:		1900	1900		1900	1900		1900	1900		1900	1900	
Adjustment:				0.83		0.92			0.95		0.98	0.95	
Lanes:				2.00		1.00			0.85		1.51	0.49	
Final Sat.:			1750		7600	1750		2177	1521		2811	888	
Capacity Ana				0 0 0	0 06	0 0 4	0 00	0 00	0 00	0 1 4	0 16	0 16	
Vol/Sat:	0.23	0.38	0.24		0.26	0.04	0.03	0.20	0.20	U.14 ****	0.16	0.16	
Crit Moves:	40.0		00 6	****	40.0	64 1	1 5 0		20.4		40.0	40.0	
Green Time:			99.6		48.2	64.1		39.4	39.4		49.9	49.9	
Volume/Cap:			0.41		0.91	0.11		0.88	0.88		0.55	0.55	
Uniform Del:			18.8		58.2	34.0		62.5	62.5		50.2	50.2	
IncremntDel:			0.3	5.4		0.1		10.1	10.1	16.2		0.6	
InitQueuDel:			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Delay Adj:			0.60		1.05	1.12		1.00	1.00		1.00	1.00	
4 '	75.8		11.6		67.2	38.1		72.5	72.5		50.8	50.8	
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
AdjDel/Veh:			11.6		67.2	38.1		72.5	72.5		50.8	50.8	
LOS by Move:			B+	E-		D+		E	E	F	D	D	
·	25		8	. 7		3	3		22	16	13	13	
Note: Queue	repor	ted is	the n	umber	oi ca	rs per	lane	•					

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Prj PM



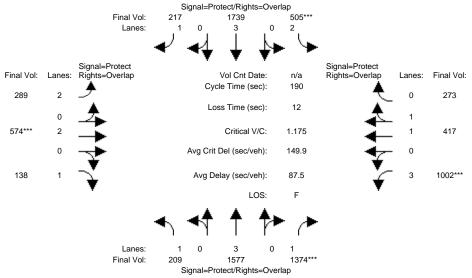
7			•	rotcourtigi			_		,	West Bound			
Movement:	Ι.	– T	- K	Т.	- T	- K	. Т.	- T	- K	Г -	- T		
			69								44	44	
Y+R:		5.8				5.8		5.8		5.9		6.0	
									1				
Volume Module			'	1		'	1		'	1		'	
Base Vol:	731	2887	426	227	1964	74	109	445	311	431	459	145	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	731	2887	426	227	1964	74	109	445	311	431	459	145	
Added Vol:	14	0	0	0	10	0	10	10	0	0	10	0	
PasserByVol:			0	31	0	0	14	-45	0	0	0	0	
Initial Fut:			426	258	1974	74	133	410	311	431	469	145	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
PHF Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
	745		426	258	1974	74	133	410	311	431	469	145	
Reduct Vol:	0	0	0	0	0	0	0		0	0	0	0	
Reduced Vol:			426		1974	74	133		311	431	469	145	
PCE Adj:		1.00	1.00		1.00	1.00		1.00			1.00	1.00	
MLF Adj:			1.00		1.00	1.00		1.00			1.00	1.00	
FinalVolume:				258			133		311		469	145	
Saturation Fi				1000	1000	1000	1000	1000	1000	1000	1000	1000	
Sat/Lane:			1900		1900	1900		1900	1900		1900	1900	
Adjustment:					1.00	0.92		0.99			0.98	0.95	
Lanes:			1.00		4.00	1.00		1.11			1.51	0.49	
Final Sat.:					7600	1750		2103			2826	874	
Capacity Anal	,												
Vol/Sat:	_			0 08	0 26	0 04	0 04	0.19	0.19	0 14	0.17	0.17	
Crit Moves:			0.21	****		0.01		****	0.13	****	0.17	0.17	
Green Time:			100.9	18.0	48.7	64.4	15.6	38.1	38.1	26.7	49.2	49.2	
Volume/Cap:					0.90	0.11		0.87	0.87		0.57	0.57	
Uniform Del:			18.1		57.8	33.8		63.0	63.0		50.9	50.9	
IncremntDel:			0.3	10.3		0.1	1.1		9.4		0.7	0.7	
InitQueuDel:			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Delay Adj:			0.58	1.00	1.06	1.12	1.00	1.00	1.00	1.00	1.00	1.00	
Delay/Veh:			10.8	83.8	66.6	38.0	73.8	72.4	72.4	84.0	51.7	51.7	
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
AdjDel/Veh:			10.8	83.8	66.6	38.0	73.8	72.4	72.4	84.0	51.7	51.7	
LOS by Move:				F	E	D+	E	E	E	F	D-	D-	
HCM2kAvgQ:				8	26	3	4	21	21	16	14	14	
Note: Queue				umber	of ca	ars per	lane						
-	-					-							

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing PM



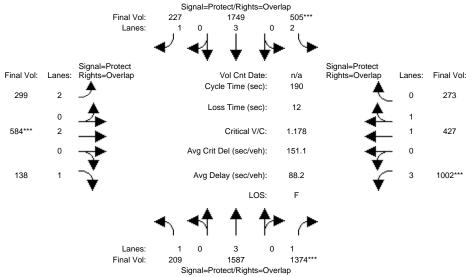
Signal=Protect/Rights=Overlap												
	No	rth Bo	ound	Soi	ath Bo	ound	Εa	ast Bo	Bound West Bound			
Movement:	Г.	- T	- R	L -	- T	- R	, L .	- T	- R	L -	- T	- R
Min. Green:	14	77	10	14	72	10	14	10	10	14		10
Y+R:	4.0	4.0	4.0	4.U 	4.0	4.0	4.0	4.0	4.0	4.0		
Volume Module				1 1		'	ı			1 1		'
Base Vol:	209	1433	1363	341	1592	206	268	514	138	944	371	84
Growth Adj:			1.00		1.00			1.00			1.00	1.00
Initial Bse:			1363	341			268		138			84
Added Vol:			0		0		0		0		0	0
PasserByVol:			0	0	0		0	0	0	0	0	0
Initial Fut:				341					138			84
User Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:	209	1433	1363		1592		268	514	138	944		84
Reduct Vol:			0		0		0		0		0	0
Reduced Vol:			1363		1592		268		138		371	84
PCE Adj:			1.00					1.00			1.00	1.00
MLF Adj:			1.00					1.00			1.00	1.00
FinalVolume:			1363	341				514	138	944		84
	,											
Saturation F. Sat/Lane:			1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:								1.00			0.98	0.95
Lanes:								2.00			1.62	0.38
Final Sat.:					5700			3800			3016	683
Capacity Anal	lysis	Modu.	le:									
Vol/Sat:	0.12	0.25	0.78	0.11	0.28	0.12	0.09	0.14	0.08	0.21	0.12	0.12
Crit Moves:			****	****				****		****		
Green Time:	27.1	99.1	135.1	18.8	90.8	115.1	24.3	23.5	50.6	36.0	35.1	53.9
Volume/Cap:			1.10	1.10	0.58	0.19	0.67	1.10	0.30	1.10	0.67	0.43
Uniform Del:	75.1	27.5	26.0	81.1	34.1	15.9	74.8	78.9	52.6	73.0	68.2	52.6
<pre>IncremntDel:</pre>	21.2	0.1	55.7	79.0	0.3	0.1	4.2	70.0	0.4	60.1	2.5	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:				1.00	0.80	0.56	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	96.4	27.6	81.7	160.1	27.5	9.0	79.0	149	53.0	133.0		52.9
User DelAdj:			1.00				1.00	1.00	1.00		1.00	1.00
AdjDel/Veh:				160.1	27.5	9.0	79.0	149	53.0	133.0	70.7	52.9
LOS by Move:									D-			D-
HCM2kAvgQ:									7	29	13	12
Note: Queue	repor	ted i	s the 1	number	of c	ars per	lane	•				

#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background PM



Signal=Protect/Rights=Overlap												
Approach:	No	rth B	ound	Soi	ıth B	ound	Ea	ast Bo	und	₩e	est Bo	und
Movement:	L	- T	- R	L -	- T	- R	L -	- T	- R	L -	- T	- R
Min. Green:	14	77			72			10	10	14	10	10
Y+R:		4.0	4.0		4.0			4.0	4.0	4.0		4.0
Volume Module												
Base Vol:		1577	1374		1739	217	289	574	138	1002	417	273
Growth Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		1577	1374		1739	217	289	574	138	1002	417	273
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:		1577	1374		1739	217	289	574	138	1002	417	273
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:		1577	1374		1739	217	289	574	138	1002	417	273
Reduct Vol:	0		0	0	0	0	0	0	0	0	0	0
Reduced Vol:		1577	1374		1739	217	289	574	138	1002	417	273
_		1.00	1.00		1.00			1.00	1.00		1.00	1.00
_	1.00		1.00	1.00		1.00		1.00	1.00		1.00	1.00
FinalVolume:		1577	1374		1739		289	574	138	1002	417	273
Saturation F.												
Sat/Lane:		1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:			0.92	0.83				1.00	0.92		0.99	0.95
Lanes:		3.00	1.00	2.00		1.00		2.00	1.00		1.19	0.81
Final Sat.:		5700	1750		5700	1750		3800	1750		2235	1463
Capacity Ana				' '			·			' '		'
Vol/Sat:		0.28	0.79	0.16	0.31	0.12	0.09	0.15	0.08	0.22	0.19	0.19
Crit Moves:		* * - *	****	****				****		****		
Green Time:	27.0	91.4	127.0	25.9	90.3	110.1	19.8	24.4	51.4	35.6	40.2	66.2
	0.84		1.17	1.17		0.21	0.88	1.17	0.29		0.88	0.54
Uniform Del:			29.9		35.6	18.2		78.4	52.0		68.7	47.0
IncremntDel:				100.7	0.5	0.1		98.5	0.3		11.3	0.4
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	0.80	0.62	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:			117.8	178.4	29.1	11.4	102.5	177	52.3	164.1	80.1	47.4
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:	97.2	33.8	117.8	178.4	29.1	11.4	102.5	177	52.3	164.1	80.1	47.4
LOS by Move:	F	C-	F	F	С	B+	F	F	D-	F	F	D
HCM2kAvgQ:	12	19	105	25	20	3	10	22	7	33	22	18
Note: Queue	repor	ted i	s the 1	number	of c	ars per	lane					
	-					-						

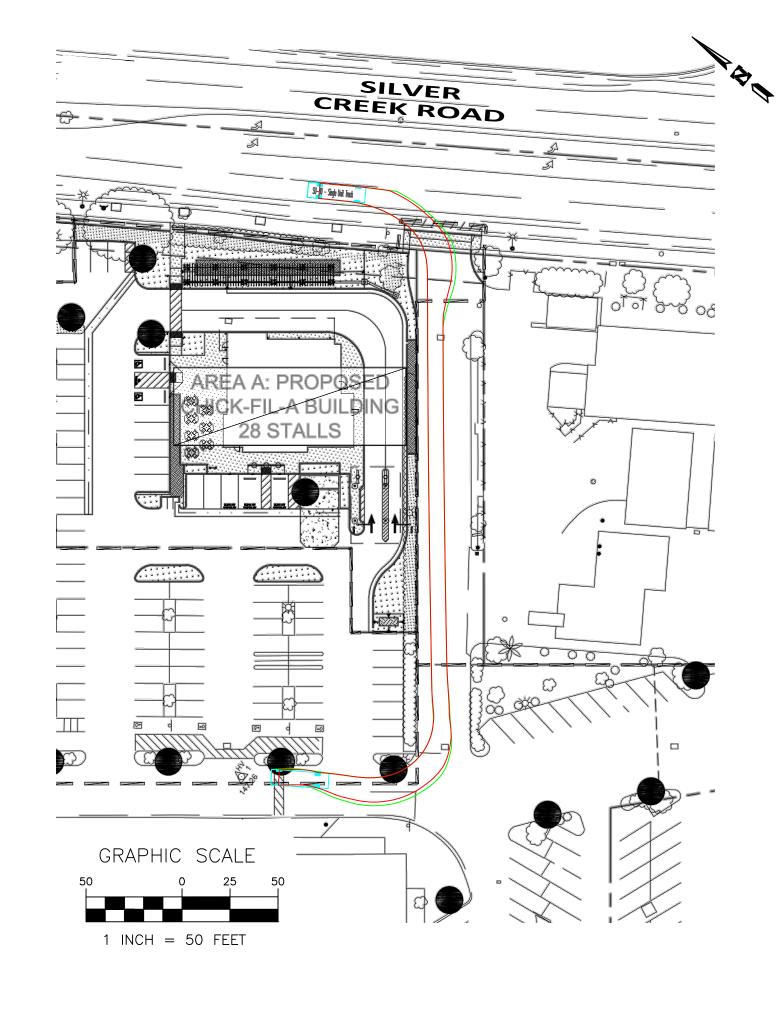
#### Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background + Prj PM

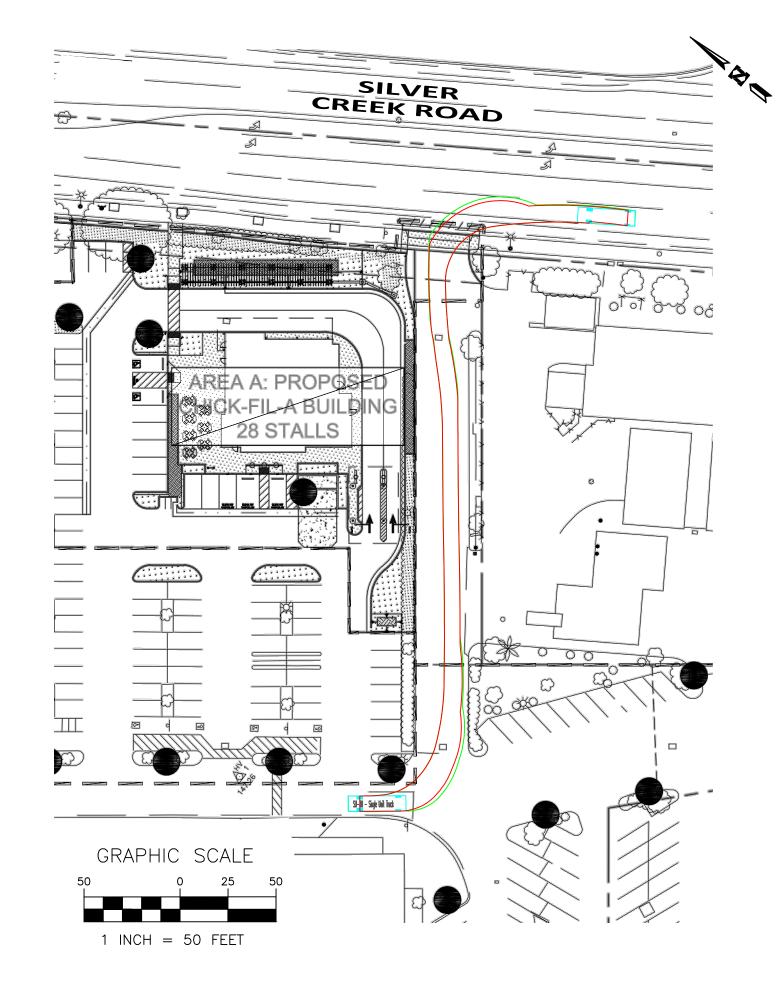


Signal=Protect/Rights=Overlap												
Approach:	No	rth Bo	ound	Soi	ıth B	ound	Εa	ast Bo	und	We	est Bo	und
Movement:	L ·	- T	- R	L -	- Т	- R	L ·	- T	- R	L ·	- T	- R
Min. Green:	14	77	10	14	72	10		10		14	10	10
Y+R:		4.0	4.0		4.0			4.0		4.0		4.0
Volume Module												
Base Vol:		1577	1374		1739	217	289	574	138	1002	417	273
_	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00
Initial Bse:		1577	1374		1739		289	574	138	1002	417	273
Added Vol:	0	10	0	0	10	10	10	10	0	0	10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:			1374		1749		299	584	138	1002	427	273
User Adj:		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Adj:	1.00		1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:		1587	1374		1749	227	299	584	138	1002	427	273
Reduct Vol:	0	0	0	0	0		0	0	0	0	0	0
Reduced Vol:		1587	1374		1749		299	584	138	1002	427	273
PCE Adj:		1.00	1.00		1.00			1.00	1.00		1.00	1.00
_	1.00		1.00		1.00			1.00	1.00		1.00	1.00
FinalVolume:			1374		1749		299		138	1002	427	273
Saturation Fi				1000	1000	1 0 0 0	1 0 0 0	1000	1000	1 0 0 0	1 0 0 0	1000
Sat/Lane:		1900	1900		1900			1900	1900		1900	1900
Adjustment:			0.92		1.00			1.00	0.92		0.99	0.95
Lanes:		5700	1.00 1750		3.00 5700			2.00	1.00 1750		1.20 2256	0.80
Final Sat.:												1442
Capacity Anal												
Vol/Sat:			0.79	0 16	0.31	0.13	n na	0.15	0.08	0 22	0.19	0.19
Crit Moves:	0.12	0.20	****	****	0.51	0.13	0.09	****	0.00	****	0.19	0.19
Green Time:	26 9	91 2			an 1	110.3	20 1	24.8	51.7		40.2	66.0
	0.84		1.18		0.65	0.22		1.18	0.29		0.90	0.54
Uniform Del:			30.0		35.9			78.3	51.8		69.0	47.3
IncremntDel:				101.8	0.6			99.3	0.3		12.9	0.5
InitQueuDel:		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:			1.00		0.80			1.00	1.00		1.00	1.00
Delay/Veh:							104.5	178		165.3		47.7
User DelAdi:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:							104.5	178		165.3		47.7
LOS by Move:			F	1/J.5	23.4 C		104.5 F	F F	D-	F	F	77.7 D
-	12		105	25	20	4	11		7		22	18
Note: Queue									,	55		10
gucuc .			- 0.10 1		0 0	PC1		-				

# **Appendix D**

**Truck Turning Templates** 





# **Appendix E**

**Chick-Fil-A Operations Memorandum** 



# Silver Creek Rd. and Capitol Operations Management Plan Conditional Use Application

June 22, 2021

#### Location

The proposed Chick-fil-A restaurant is located at 3000-3100 block (odd) Silver Creek Road, an out parcel to 3155 Silver Creek Rd, San Jose, CA. (The Address for this property has yet to be assigned). The parcel for the proposed CFA was recently created with Tentative Parcel Map T20-030, and is located within a larger 9.9 acre, multi-parcel Shopping Center with other commercial buildings. All vehicle access to this restaurant with be via an access and parking easement.

#### **Food**

Chick-fil-A provides food you can feel good about. Chick-fil-A is dedicated to providing customers with fresh, good nutrition, and a balanced menu that allows accommodation of individual dietary needs. Everything on the menu is made from scratch daily—fresh-squeezed lemonade, hand-chopped salads, hand-breaded chicken, and handspun milkshakes. The chicken served is 100 percent whole breast meat with no fillers or hormones. Options are provided for all dietary needs, and the website, noted at the end of this document, is a great resource for people who have nutritional restrictions. Chick-fil-A wants to be considered a 'home away from home,' so customers are treated like family and a clean, welcoming dining experience is provided.

# **Hours of Operation**

The new Chick-fil-A is anticipated to be open Monday through Saturday from 6 a.m. to 11:00 p.m. Chick-fil-A is closed on Sunday.

# **Parking and Transportation**

The restaurant is designed to provide a pleasant experience for both dine-in and drive-through guests.

Ample parking is provided, as well as a double lane drive-through. A canopy is proposed over the drive-thru for the protection of employees who will take orders on iPads during peak hours.

The restaurant will be staffed so that if the drive-thru queuing begins stacking beyond the drive-through lane, team members assist with face-to-face ordering via an iPad ordering system. The Operators use the iPad ordering during peak hours of 11:30 am to 1:30 pm and any additional time when needed. In addition, team members will monitor the drive-through queue and direct traffic, accordingly, to ensure that any vehicle queueing beyond the drive-through lane will not block vehicular circulation within the parking lot, if applicable.



The iPad ordering system allows team members to take orders, receive payment, and assist with traffic movement within the parking lot. Based on data from comparable stores, the iPad ordering system increases the drive thru speed of service by 30% than the typical speaker box.

Additionally, a bypass lane has been designed into the project, to allow for guests with smaller orders to be served their food and exit the line prior to reaching the pickup window, should the vehicle at the pickup window have a large order that takes additional time to complete.

The drive-thru queue is located internally to the site to allow for internal traffic flow, and the queue has been designed to hold a capacity of 21 cars, which should be ample storage to serve the restaurant's guests.

# **Traffic Impacts**

Approximately 50% of Chick-fil-A guests use the drive-thru service. The site was designed to mitigate traffic impacts and to provide a pleasant experience for both drive-thru and dine-in guests. The drive-thru is oriented behind the restaurant where there will be no pedestrian conflicts. The drive-thru car stacking is sufficient to handle the queue lengths as it was designed based on studies accomplished at other Chick-fil-A restaurants.

It is important to note that Chick-fil-A is closed on Sundays, so there would be no traffic impacts on that day.

## **Menu Boards & Acoustics**

The menu board speakers are acoustically variable. They adjust to the surrounding ambient noise, which minimizes any noise impact to the adjacent area. They are also screened by dense landscaping.

#### **Deliveries**

Deliveries occur 2-3 times per week during off-peak hours to have the least impact to on-site circulation. Deliveries typically take 15-45 minutes, and it is their goal to be on and off site as quickly & safely as possible.

### **Odor Control & Prevention**

Chick-fil-A's chicken is cooked in a pressure cooker which holds the odors captive using Patented Capture Jet® technology for improved capture and containment of pollutants. As for the waffle fries, the mechanical hood system is designed to remove 95% of grease particulates.

Everything on the menu is made from scratch daily-- fresh squeezed lemonade, hand chopped salads, hand-breaded chicken, and handspun milkshakes

Trash is picked up on a daily basis and is separated by recycling and organic waste so that they are not comingled. The enclosure is located at the southeast corner of the parcel near the exit of the drive-thru and is completely enclosed with a roof.



# **Job Opportunities**

The restaurant would employ approximately 80 area residents.

Chick-fil-A strives to offer all employees and staff a positive work place with opportunities for leadership development and promotion to management roles. In fact, some team members even go on to become Operators. Chick-fil-A recognizes that to take care of restaurant guests, it is critical to first take care of team members. To attract and retain the best team members, highly competitive wages are offered. Also, team members can apply for scholarships up to \$25,000. Finally, work-life balance is respected as everyone is guaranteed to have Sundays off. This started with the first restaurant opened by Chick-fil-A's founder, Truett Cathy.

# **Operator & Community Involvement**

Chick-fil-A's unique franchise Operator model reflects the company's entrepreneurial spirit by creating small businesses which are operated locally by a single Franchisee. The restaurant will be a locally owned and operated businesses with employment and tax benefits going back to the local community. Operators seek to become highly involved in their local communities, frequently working to support local schools and organizations and live within their communities.

Chick-fil-A places great emphasis on community involvement and leadership. Chick-fil-A restaurants are well-known for serving their local communities through volunteerism, food donations, fundraising and other partnerships with non-profit organizations and for its restaurant scholarship program, which has given more than \$30 million in college scholarships to team members.

# **Energy Efficiency**

The building is expected to feature Energy Star rated equipment, solar reflective roofing, low-flow plumbing fixtures and an eco-friendly HVAC system. EV parking spaces will also be provided.

# **Additional Operation Details**

**1. Trash/Litter/Graffiti/Site Maintenance, etc**. The project site and all public streets and spaces within 300 feet of the site will be well maintained, clean and free of litter, graffiti.

# 2. Security and Police Issues.

Security cameras will be strategically throughout the space, including facing the front door. All security camera video footage will be retained for 30 days in the event that an incident needs review by security personnel or the police.



- **3. Loitering and Panhandling**. Loitering and panhandling will not be tolerated and the business operator will maintain a zero tolerance policy. The Operator will cooperate with San Jose Police Department for property language and will post "No loitering" signs in conspicuous places containing wording that aligns with state and local law. All loitering and panhandling issues will be dealt with in a swift and consistent manner by notifying local police. No consumption or open alcoholic beverages will be permitted on the premises. Signs specifically prohibiting this activity will also be placed in conspicuous places in both Spanish and English if required.
- **4. Addressing Neighborhood Concerns**. The project applicant/business operator will engage the community organization/neighborhood leaders/etc. to address neighborhood concerns with any aspect of the business. The project applicant/business operator will be available to meet with concerned parties and endeavor to create a mutually beneficial mitigation plan in accordance with all relevant laws and regulations.
- **5. Entertainment**. There are no entertainment uses proposed for this site currently.
- **6. Lighting and Windows**. The proposed project is located in a well-lit area that contains ample offstreet parking lot and exterior building lighting. All lighting issues, such as inadequate lighting or burned out lights, will be addressed promptly by our maintenance provider. The building is designed with full height glass windows to provide a clear and unobstructed view from inside and out. All signage affixed to the windows will not obstruct these views.
- **7. Noise**. The project will conform to all local noise performance standards as required by the Municipal Code. All efforts will be made to limit the amount of noise emanating from the business. No live entertainment is proposed in the space. Any music played during normal business operations will be kept to ambient background music.
- **8. Employee Training**. All staff are trained to perform their assigned duties safely and in accordance with best management practices and in full compliance with applicable laws and Health Department Regulations.

www.Chick-fil-A.com