APPENDIX F

Transportation Analysis

HEXAGON TRANSPORTATION CONSULTANTS, INC.

Harker School Union Avenue Campus

Final Transportation Analysis

Prepared for:

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Executive Summary

This study was conducted for the purpose of identifying any potential transportation impacts caused by the proposed Harker Middle School at 4525 Union Avenue in San Jose, California. The proposed new school would serve up to 600 students from 6th to 8th grade. The project site is currently occupied by the Harker preschool with 120 students and 50 staff members. The project would remodel the existing buildings and include additional facilities to serve the middle school. Access to the site is currently provided by two unsignalized driveways on Union Avenue. The project is proposing to relocate the northern driveway to be centrally located along the project frontage and install a traffic signal on Union Avenue. The southern driveway would operate as an unsignalized intersection with restricted right-turn only access.

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 (Policy 5-1) and the *Transportation Analysis Handbook 2018*, the transportation analysis report for the project includes a CEQA transportation analysis (TA) and a local transportation analysis (LTA). The CEQA transportation analysis comprises an evaluation of Vehicle Miles Traveled (VMT). VMT is defined in Chapter 1. The LTA supplements the CEQA transportation analysis by identifying transportation operational issues via an evaluation of weekday AM and PM peak-hour traffic conditions for seven signalized intersections and two freeway ramps in the vicinity of the project site. The LTA also includes an analysis of site access, on-site circulation, parking, vehicle queuing, and effects to transit, bicycle, and pedestrian access.

The effects of the project on nearby freeway segments were evaluated in accordance with the methodologies described in the Santa Clara Valley Transportation Authority's (VTA) *Transportation Impact Analysis Guidelines* (2014). The VTA administers the Santa Clara County Congestion Management Program (CMP). The project freeway analysis is presented for informational purposes.

CEQA Transportation Impacts

Project Vehicle Miles Traveled (VMT) Impacts and Mitigation Measures

Project Impact: The VMT generated by the project (13.83 per employee/student) would exceed the threshold of 12.22 VMT per employee/student; therefore, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the significant VMT impact.

Mitigation Measures: The following mitigation measures would reduce the significant VMT impact.

- **TDM Programs**

- Operate a shuttle service for all students and employees.
- Implement a School Pool program

These mitigation measures would reduce the project VMT by improving student transport and transit access. The combination of these mitigation measures would reduce the project VMT to 10.37 per employee/student, which would reduce the project impact to a less than significant level.

CEQA Cumulative Impacts

The project is consistent with the General Plan goals and policies for the following reasons:

- The project site is adjacent to a bus stop and bicycle lanes on Union Avenue.
- The project would increase the equivalent employment density in the project area.
- The project would implement a TDM plan that includes shuttle service and a School Pool program.
- The project would provide a free intercampus shuttle for all students and faculty.

Therefore, the project would be considered as part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

Local Transportation Analysis

Project Trip Generation

As the proposed Harker middle school will be relocating from its existing location at the Blackford Campus in San Jose to the Union Avenue site, project trip estimates were based on a trip generation count conducted at the existing Harker Middle School. A 25% trip reduction was applied to the trip generation estimate to account for the necessary VMT reduction measures.

With the trip reduction and taking credit for trips generated by the existing preschool on site, the project would generate 457 net new trips during the AM peak hour (225 inbound and 232 outbound) and 212 trips during the PM peak hour (90 inbound and 122 outbound).

Intersection Traffic Operations

Based on the City of San Jose intersection operations analysis criteria, none of the study intersections would be adversely affected by the project.

Other Transportation Issues

The proposed site plan shows adequate site access and on-site circulation. The project would not have an adverse effect on the existing pedestrian or bicycle facilities in the study area. The proposed new signal on Union Avenue at the relocated northern project driveway would increase delay for transit route 62 that currently operates on Union Avenue by 20 seconds during the AM peak hour and 5 seconds during the PM peak hour.

The following recommendations were identified to address issues associated with intersection queuing, site access, on-site circulation, and parking:

- Include raised median islands (not striped medians) on Union Avenue as part of the new signal design to prevent left turns at the southern project driveway.

- Station school staff members and/or parent volunteers at the drop-off/pick-up area during school peak hours to ensure student safety and to direct vehicles to pull as far forward as possible to make effective use of the on-site queuing space.
- Implement staggered start and end times for all grade levels to reduce vehicle queues that would develop during student loading operations both on-site and within the northbound left turn pocket at the new traffic signal on Union Avenue.
    - Alternatively, implement additional shuttle service so that half of the students use the school shuttle buses to reduce vehicle queuing before and after school.
- Coordinate with the City of San Jose Planning Department to determine the number of bicycle parking spaces that should be provided on site.

1. Introduction

This report presents the results of the transportation analysis conducted for the proposed Harker Middle School at 4525 Union Avenue in the City of San Jose, California (see Figure 1). 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,* adopted in April 2018. Based on the City of San Jose's Transportation Analysis Policy (Policy 5-1) and the *Transportation Analysis Handbook,* the transportation analysis report for the project includes a California Environmental Quality Act (CEQA) transportation analysis (TA) and a local transportation analysis (LTA).

The effects of the project on nearby freeway segments were evaluated in accordance with the methodologies described in the Santa Clara Valley Transportation Authority's (VTA) *Transportation Impact Analysis Guidelines* (2014). The VTA administers the Santa Clara County Congestion Management Program (CMP). The project freeway analysis is presented for informational purposes.

Project Description

The proposed new school would serve up to 600 students from 6th to 8th grade. The project site is currently occupied by the Harker preschool with 120 students and 50 staff members. The project would remodel the existing buildings and include additional facilities to serve the middle school. Access to the site is currently provided by two unsignalized driveways on Union Avenue. The project is proposing to relocate the northern driveway to the south to be centrally located along the project frontage and install a traffic signal. The southern driveway would operate as an unsignalized intersection with restricted right-turn only access. The project site plan is shown on Figure 2.

Transportation Policies

In adherence with State of California Senate Bill 743 (SB 743) and the City's goals as set forth in the Envision San Jose 2040 General Plan, the City of San Jose has adopted a new Transportation Analysis Policy, Council Policy 5-1. The policy replaces its predecessor (Council Policy 5-3) and establishes the thresholds for transportation impacts under CEQA based on vehicle miles traveled (VMT) instead of intersection level of service (LOS). The intent of this change is to shift the focus of transportation analysis under CEQA from vehicle delay and roadway auto capacity to a reduction in vehicle emissions, and the creation of robust multimodal networks that support integrated land uses. All new projects are required to analyze transportation impacts using the VMT metric and conform to Council Policy 5-1. The new Transportation Analysis Policy took effect on March 29, 2018.

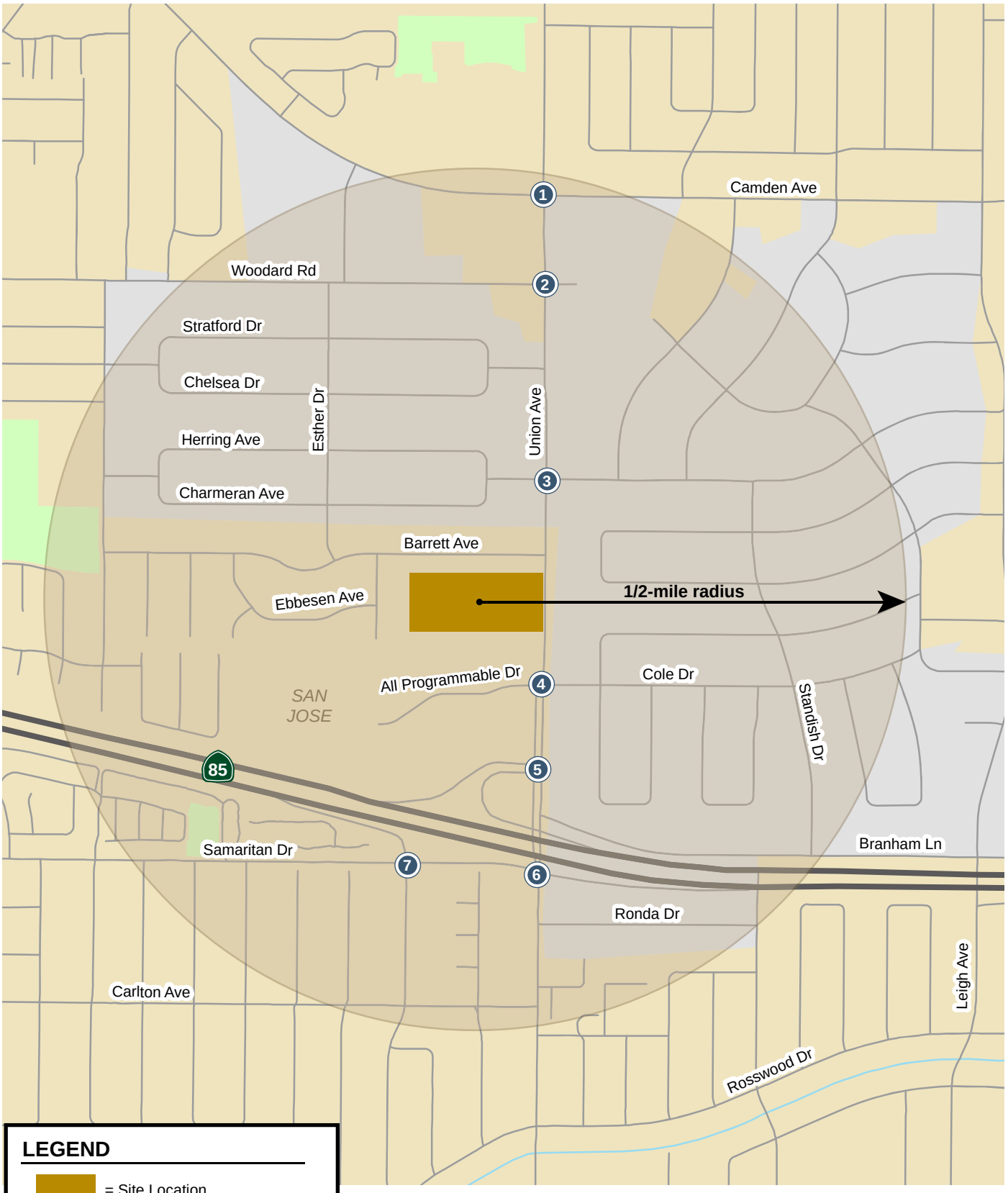


Figure 1
Site Location and Study Intersections

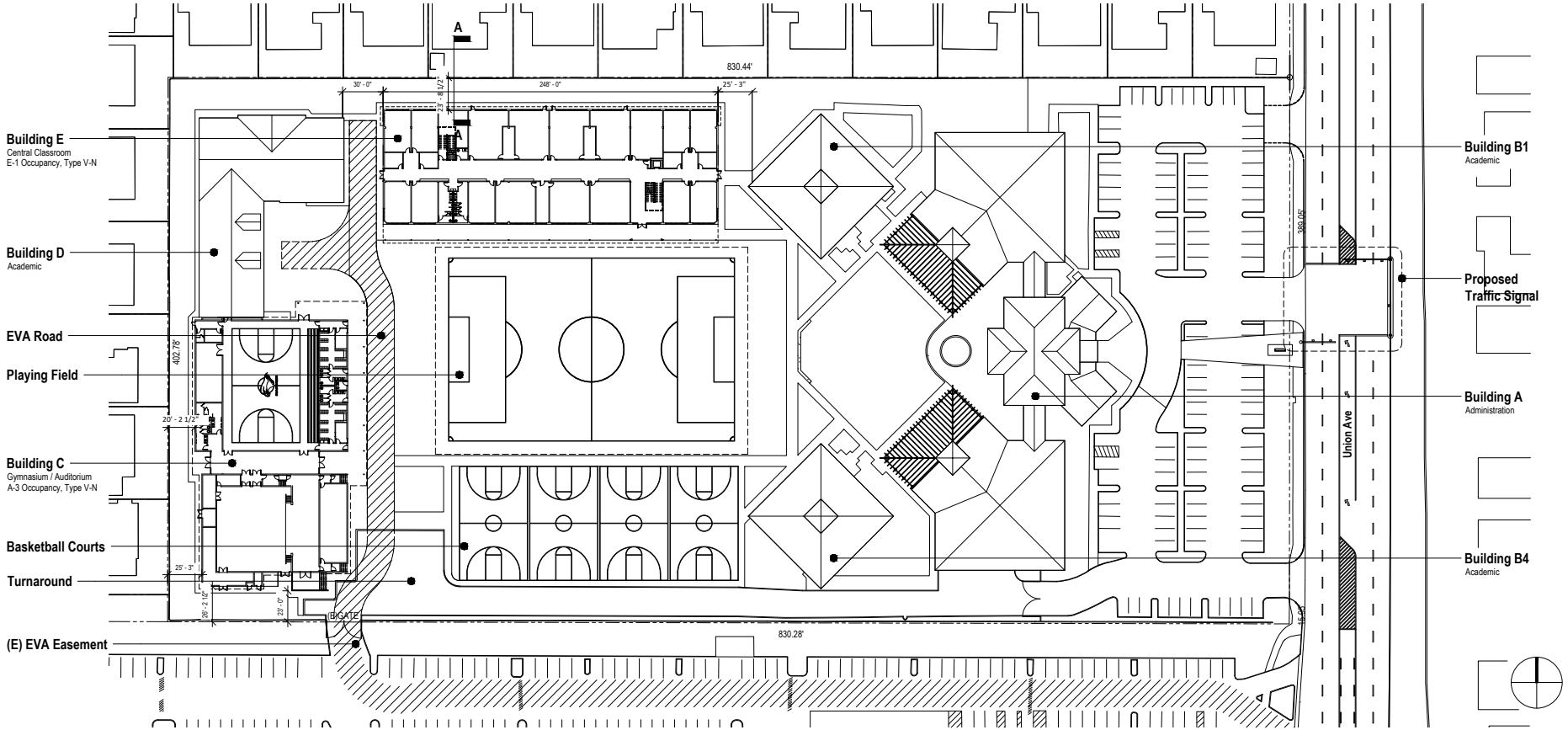


Figure 2
Project Site Plan

NORTH
Not to Scale

The new Transportation Analysis Policy 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.

The Envision San Jose 2040 General Plan contains policies to encourage the use of non-automobile transportation modes to minimize vehicle trip generation and reduce VMT, including the following:

- Accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and VMT (TR-1.1);
- Consider impacts on overall mobility and all travel modes when evaluating transportation impacts of new developments or infrastructure projects (TR-1.2);
- Increase substantially the proportion of commute travel using modes other than the single-occupant vehicle in order to meet the City's mode split targets for San Jose residents and workers (TR-1.3);
- Through the entitlement process for new development, projects shall be required to fund or construct needed transportation improvements for all transportation modes, giving first consideration to improvement of biking, walking and transit facilities and services that encourage reduced vehicle travel demand (TR-1.4);
- Actively coordinate with regional transportation, land use planning, and transit agencies to develop a transportation network with complementary land uses that encourage travel by bicycling, walking and transit, and ensure that regional greenhouse gas emissions standards are met (TR-1.8);
- Give priority to the funding of multimodal projects that provide the most benefit to all users. Evaluate new transportation projects to make the most efficient use of transportation resources and capacity (TR-1.9);
- Coordinate the planning and implementation of citywide bicycle and pedestrian facilities and supporting infrastructure. Give priority to bicycle and pedestrian safety and access improvements at street crossings and near areas with higher pedestrian concentrations (school, transit, shopping, hospital, and mixed-use areas) (TR-2.1);
- Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments. Eliminate or minimize physical obstacles and barriers that impede pedestrian and bicycle movement on City streets. Include consideration of grade-separated crossings at railroad tracks and freeways. Provide safe bicycle and pedestrian connections to all facilities regularly accessed by the public, including the Mineta San Jose International Airport (TR-2.2);
- Integrate the financing, design and construction of pedestrian and bicycle facilities with street projects. Build pedestrian and bicycle improvements at the same time as improvements for vehicular circulation (TR-2.5);
- Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements (TR-2.8);
- Coordinate and collaborate with local School Districts to provide enhanced, safer bicycle and pedestrian connections to school facilities throughout San Jose (TR-2.10);

- As part of the development review process, require that new development along existing and planned transit facilities consist of land use and development types and intensities that contribute towards transit ridership. In addition, require that new development is designed to accommodate and to provide direct access to transit facilities (TR-3.3);
- Support the development of amenities and land use and development types and intensities that increase daily ridership on the VTA, BART, Caltrain, ACE and Amtrak California systems and provide positive fiscal, economic, and environmental benefits to the community (TR-4.1);
- Require large employers to develop and maintain TDM programs to reduce the vehicle trips generated by their employees (TR-7.1);
- Promote transit-oriented development with reduced parking requirements and promote amenities around appropriate transit hubs and stations to facilitate the use of available transit services (TR-8.1);
- Balance business viability and land resources by maintaining an adequate supply of parking to serve demand while avoiding excessive parking supply that encourages automobile use (TR-8.2);
- Support using parking supply limitations and pricing as strategies to encourage the use of non-automobile modes (TR-8.3);
- Discourage, as part of the entitlement process, the provision of parking spaces significantly above the number of spaces required by code for a given use (TR-8.4);
- Allow reduced parking requirements for mixed-use developments and for developments providing shared parking or a comprehensive transportation demand management (TDM) program, or developments located near major transit hubs or within Villages and Corridors and other growth areas (TR-8.6);
- Within new development, create and maintain a pedestrian-friendly environment by connecting the internal components with safe, convenient, accessible, and pleasant pedestrian facilities and by requiring pedestrian connections between building entrances, other site features, and adjacent public streets (CD-3.3);
- Create a pedestrian-friendly environment by connecting new residential development with safe, convenient, accessible, and pleasant pedestrian facilities. Provide such connections between new development, its adjoining neighborhood, transit access points, schools, parks, and nearby commercial areas (LU-9.1);
- Encourage all developers to install and maintain trails when new development occurs adjacent to a designated trail location. Use the City's Parkland Dedication Ordinance and Park Impact Ordinance to have residential developers build trails when new residential development occurs adjacent to a designated trail location, consistent with other parkland priorities. Encourage developers or property owners to enter into formal agreements with the City to maintain trails adjacent to their properties (PR-8.5).

CEQA Transportation Analysis Scope

The City of San Jose's Transportation Analysis Policy (Policy 5-1) establishes procedures for determining project impacts on Vehicle Miles Traveled (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.

A project's VMT is compared to the appropriate thresholds of significance based on the project location and type of development. When assessing a residential project, the project's VMT is divided by the number of residents expected to occupy the project to determine the VMT per capita. When assessing an office or industrial project, the project's VMT is divided by the number of employees to determine the VMT per employee. The project's VMT is then compared to the VMT thresholds of significance established based on the average area VMT. A project located in a downtown area is expected to have the project VMT lower than the average area VMT, while a project located in a suburban area is expected to generate the project VMT higher than the average area VMT.

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool (sketch tool) to streamline the analysis for residential, office, and industrial projects. The tool estimates a project's VMT and compares it to the appropriate thresholds of significance based on the project location and type of development.

The thresholds of significance for development projects, as established in the Transportation Analysis Policy, are based on the existing citywide average VMT level for residential uses and the existing regional average VMT level for employment uses. Figures 3 and 4 show the current VMT levels estimated by the City for residents and workers, respectively, based on the locations of residences and jobs. Developments in the green-colored areas are estimated to have VMT levels that are below the thresholds of significance, while the orange- and pink-colored areas are estimated to have VMT levels that are above the thresholds of significance.

The CEQA transportation analysis of the project includes a project-level VMT impact analysis using the City's sketch tool and a cumulative impact analysis that demonstrates the project's consistency with the Envision San Jose 2040 General Plan.

Screening for VMT Analysis

The *Transportation Analysis Handbook 2018* includes screening criteria for projects that are expected to result in less-than-significant VMT impacts. Projects that meet the screening criteria do not require a CEQA transportation analysis but may be required to provide a Local Transportation Analysis (LTA).

The proposed project, which consists of a private school, does not meet the screening criteria set forth in the *Transportation Analysis Handbook 2018.* When assessing a school project, the project's total VMT, as opposed to a per-capita or per-employee VMT metric is measured. Since the proposed project would expand from a preschool with 160 student capacity to a middle school with 600 student capacity, the project would result in a net increase in total VMT. Since the project does not meet the screening criteria and would contribute to an increase in total VMT, a detailed CEQA transportation analysis is required.

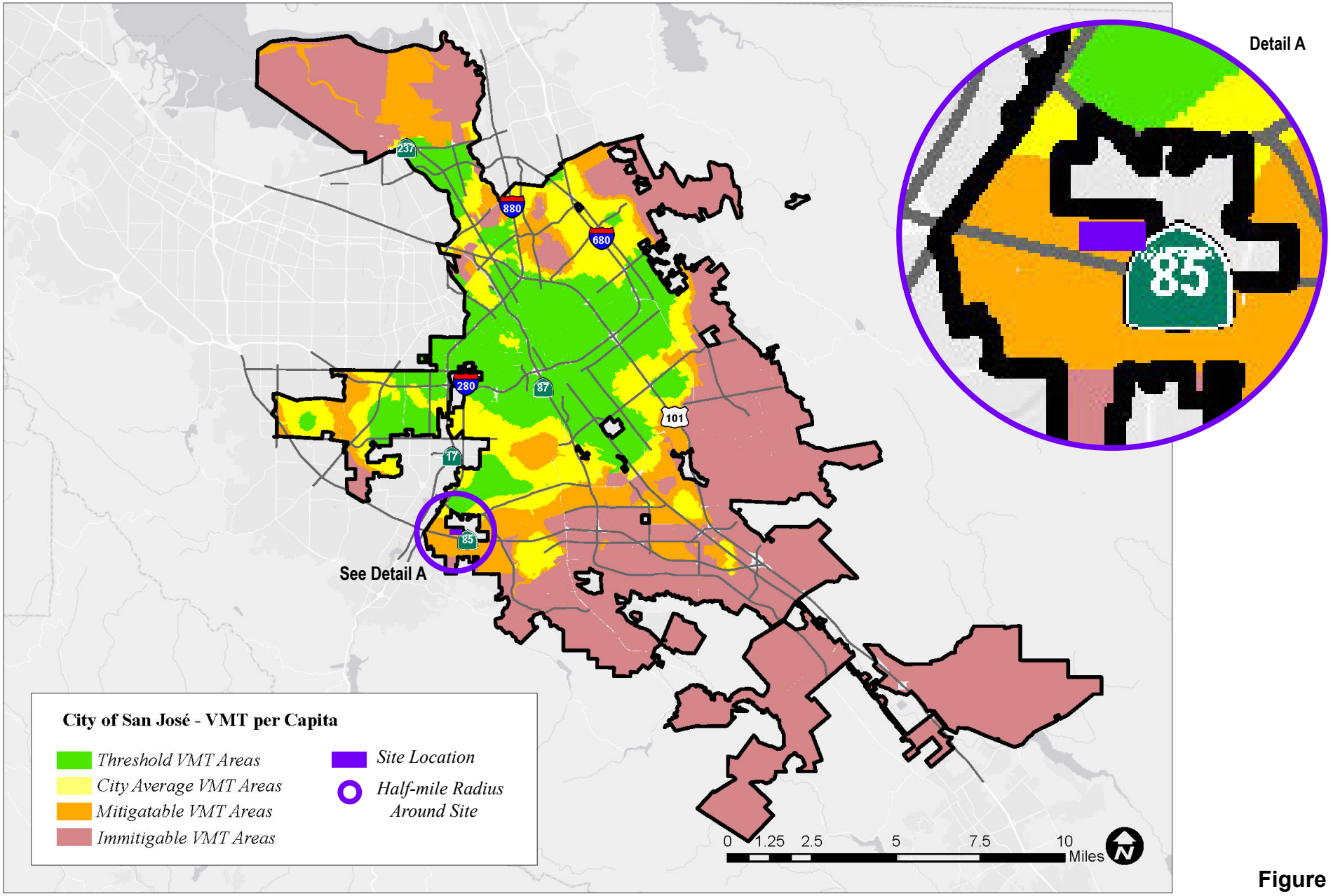


Figure 3
VMT Heat Map for Residents in San Jose

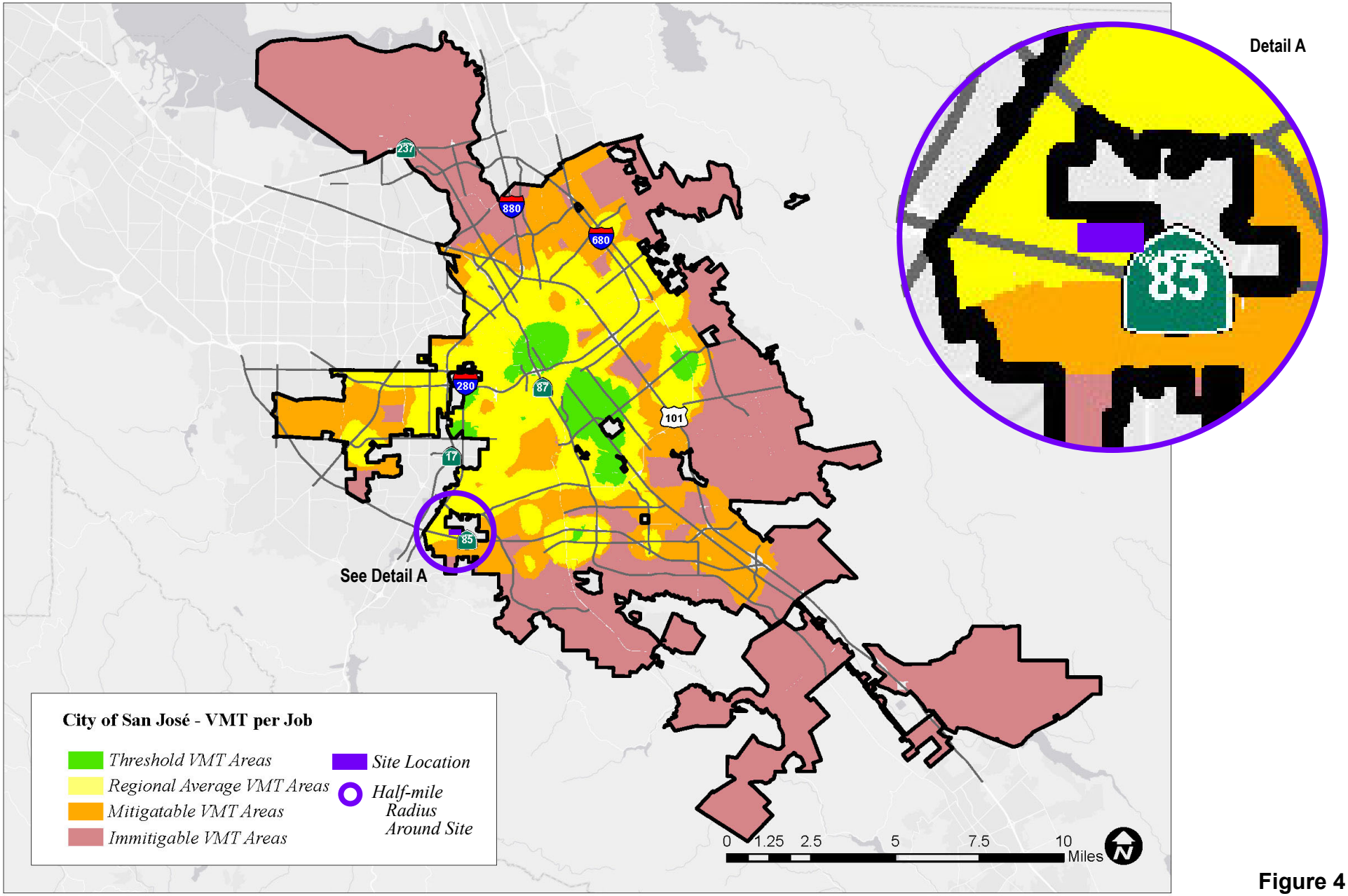


Figure 4
VMT Heat Map for Workers in San Jose

Local Transportation Analysis Scope

The Local Transportation Analysis (LTA) supplements the VMT analysis by identifying potential adverse operational effects that may arise due to a new development, as well as evaluating the effects of a new development on 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 a signalized intersection that is located within a half mile of the project site and is currently operating at LOS D or worse. Based on the criteria, as outlined in the City's *Transportation Analysis Handbook,* the LTA comprises an analysis of AM and PM peak hour traffic conditions for seven signalized intersections. Signalized intersections that do not meet all the criteria may be added to the list of study intersections at the City's discretion. Two freeway ramps in the vicinity of the project site also were evaluated for operational issues.

Study Intersections:

1. Union Avenue and Camden Avenue (CMP)
2. Union Avenue and Woodard Road
3. Union Avenue and Charmeran Avenue
4. Union Avenue and Cole Drive
5. Union Avenue and SR 85 Westbound Ramps
6. Union Avenue and Samaritan Drive/SR 85 Southbound On-Ramp
7. Samaritan Drive and SR 85 Southbound Off-Ramp

Study Freeway Ramps:

1. SR 85 northbound diagonal on-ramp from Union Avenue – AM peak-hour
2. SR 85 southbound diagonal on-ramp from Union Avenue – PM peak-hour

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours. The weekday AM peak hour of traffic 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 a typical weekday. Traffic conditions were evaluated for the following scenarios:

- ***Existing Conditions.*** Existing AM and PM peak hour traffic volumes were obtained from the City of San Jose, the 2016 CMP Annual Monitoring Report, previously completed traffic studies, and supplemented with new manual turning-movement counts (included in Appendix A).The signalized 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). Background conditions represent the baseline conditions to which project conditions are compared for the purpose of determining potential adverse operational effects of the project. The ATI sheets are contained in Appendix B.

- ***Background Plus Project Conditions.*** Background plus project conditions reflect projected traffic volumes on the planned roadway network with completion of the project and approved developments. Background plus project traffic volumes were estimated by adding to background

traffic volumes the additional traffic generated by the project. This is the only scenario that requires an evaluation for potential adverse intersection operational effects.

- ***Cumulative Conditions.*** Near-term cumulative traffic volumes reflect projected traffic volumes on the planned roadway network with completion of the pending developments in the area, as well as the proposed project and approved developments. A list of pending developments in the project vicinity was provided by the City of San Jose. This scenario was evaluated for informational purposes.

The LTA also includes an analysis of site access, on-site circulation, vehicle queuing, and effects to transit, bicycle, and pedestrian facilities.

Evaluation of CMP Freeway Segments

The project is expected to add more than 100 net new peak-hour vehicle trips to the roadway network. Thus, a CMP freeway analysis was prepared to be consistent with the methodologies set forth in the VTA's *Transportation Impact Analysis Guidelines* (2014). The project freeway analysis was prepared for informational purposes. The following freeway segments were evaluated for level of service:

Study Freeway Segments:

1. SR 85, between South De Anza Boulevard and Saratoga Avenue
2. SR 85, between Saratoga Avenue and Winchester Boulevard
3. SR 85, between Winchester Boulevard and SR 17
4. SR 85, between SR 17 and Bascom Avenue
5. SR 85, between Bascom Avenue and Union Avenue
6. SR 85, between Union Avenue and Camden Avenue
7. SR 85, between Camden Avenue and Almaden Expressway

VMT Analysis Methodology

Methodology

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool (sketch tool) to streamline the analysis for residential, office, and industrial projects with local traffic. For non-residential or non-office projects, very large projects or projects that can potentially shift travel patterns, the City's Travel Demand Model can be used to determine project VMT. The proposed project consists of a private school with a maximum of 600 students. As the City has not established thresholds of significance for private schools, the project cannot be evaluated directly using the City's sketch tool. Accordingly, based on direction from the City staff, the VMT analysis for the proposed project was conducted by converting the project trip generation estimates to an equivalent office square footage to obtain project VMT.

Based on the assessor's parcel number (APN) of a project, the sketch tool identifies the existing average VMT per capita and VMT per employee for the area. Based on the project location, type of development, project description, and proposed trip reduction measures, the sketch tool calculates the project VMT. Projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas". Projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the extent possible.

The sketch tool evaluates a list of selected VMT reduction measures that can be applied to a project to reduce the project VMT. There are four strategy tiers whose effects on VMT can be calculated with the sketch tool:

1. Project characteristics (e.g. density, diversity of uses, design, and affordability of housing) that encourage walking, biking and transit uses.
2. Multimodal network improvements that increase accessibility for transit users, bicyclists, and pedestrians,
3. Parking measures that discourage personal motorized vehicle-trips, and
4. Transportation demand management (TDM) measures that provide incentives and services to encourage alternatives to personal motorized vehicle-trips.

The first three strategies – land use characteristics, multimodal network improvements, and parking – are physical design strategies that can be incorporated into the project design. TDM includes programmatic measures that aim to reduce VMT by decreasing personal motorized vehicle mode share and by encouraging more walking, biking, and riding transit. TDM measures should be enforced through annual trip monitoring to assess the project's status in meeting the VMT reduction goals.

Thresholds of Significance

Table 1 shows the VMT thresholds of significance for development projects, as established in the Transportation Analysis Policy. The VMT impact thresholds are 15 percent below the regional average for office developments and 15 percent below the citywide average for residential developments. Thus, projects that include general employment uses (office) are said to create a significant adverse impact when the estimated project-generated VMT exceeds the existing regional average VMT per employee minus 15 percent. Currently, the reported regional average is 14.37 VMT per employee. This equates to a significant impact threshold of 12.22 VMT per employee.

Projects that trigger a significant VMT impact can assess a variety of the four strategies described above to reduce the impact. A significant impact is said to be satisfactorily mitigated when the strategies and VMT reductions implemented render the VMT impact less than significant.

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.

All study intersections are located within the City of San Jose and were evaluated based on the City of San Jose level of service standard.

Data Requirements

The data required for the analysis were obtained from previous traffic studies, new traffic counts, the City of San Jose, the 2016 CMP Annual Monitoring Report, and field observations. The following data were collected from these sources:

- existing traffic volumes
- lane configurations
- signal timing and phasing
- average speeds on freeway segments
- a list of approved and planned projects

Table 1
VMT Thresholds of Significance for Development Projects (March 2018)

Project Types	Significance Criteria	Current Level	Threshold
Residential Uses	Project VMT per capita exceeds existing citywide average VMT per capita minus 15 percent, or existing regional average VMT per capita minus 15 percent, whichever is lower.	11.91 VMT per capita (Citywide Average)	10.12 VMT per capita
General Employment Uses	Project VMT per employee exceeds existing regional average VMT per employee minus 15 percent.	14.37 VMT per employee (Regional Average)	12.21 VMT per employee
Industrial Employment Uses	Project VMT per employee exceeds existing regional average VMT per employee.	14.37 VMT per employee (Regional Average)	14.37 VMT per employee
Retail / Hotel / School Uses	Net increase in existing regional total VMT.	Regional Total VMT	Net Increase
Public / Quasi-Public Uses	In accordance with most appropriate type(s) as determined by Public Works Director.	Appropriate levels listed above	Appropriate thresholds listed above
Mixed-Uses	Evaluate each land use component of a mixed-use project independently, and apply the threshold of significance for each land use type included.	Appropriate levels listed above	Appropriate thresholds listed above
Change of Use / Additions to Existing Development	Evaluate the full site with the change of use or additions to existing development, and apply the threshold of significance for each project type included.	Appropriate levels listed above	Appropriate thresholds listed above
Area Plans	Evaluate each land use component of the Area Plan independently, and apply the threshold of significance for each land use type included.	Appropriate levels listed above	Appropriate thresholds listed above

Source: City of San Jose, *2018 Transportation Analysis Handbook* , Table 2.

Analysis Methodologies and Level of Service Standard

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 signalized study intersections are subject to the City of San Jose's level of service standards. The City of San Jose level of service methodology is TRAFFIX, which is based on the 2000 *Highway Capacity Manual* (HCM) method for signalized intersections. TRAFFIX evaluates signalized intersections operations on the basis of average delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersections level of service methodology, the City of San Jose methodology employs the CMP defaults values for the analysis parameters. The City of San Jose level of service standard for intersections is LOS D or better. The correlation between average delay and level of service is shown in Table 2.

Table 2
Signalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	up to 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	Greater than 80.0

Source: Transportation Research Board, *2010 Highway Capacity Manual,* (Washington, D.C., 2010).

CMP Signalized Intersections

Since TRAFFIX is the designated level of service methodology for the CMP and the City of San Jose, the CMP study intersection of Union Avenue and Camden Avenue is not analyzed separately, but rather is among the signalized intersections analyzed using TRAFFIX. The only difference between the City of San Jose and CMP analyses is that the CMP level of service standard for signalized intersections is LOS E or better.

Adverse Intersection Operations Effects

According to the City of San Jose's *Transportation Analysis Handbook 2018*, an adverse effect on intersection operations would occur if for either peak hour:

1. 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 this threshold is 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.

Intersection Vehicle Queuing Analysis

The analysis of intersection operations was supplemented with a vehicle queuing analysis at intersections where the project would add a substantial number of trips to the left-turn movements or stop-controlled approaches. The queuing analysis 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
λ = 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. Vehicle queuing at unsignalized intersections are evaluated based on the delay experienced at the specific study turn movement.

Freeway Ramp Analysis Methodology

A freeway ramp analysis was performed in order to verify that the freeway ramps would have sufficient capacity to serve the expected traffic volumes with and without the project. This analysis consisted of a volume-to-capacity ratio evaluation of selected freeway ramps. The ramp capacities were obtained from the *Highway Capacity Manual 2000* and consider both the free-flow speed and the number of lanes on the ramp, and in some instances the ramp metering rate. In addition, a queuing analysis was conducted to quantify the effect of project trips on the freeway ramp queue length for metered ramps.

Freeway Segment Analysis Methodology

As prescribed in the CMP technical guidelines, the level of service for freeway segments is estimated based on vehicle density. Density is calculated by the following formula:

$$D = V / (N*S)$$

Where:

D = density, in vehicles per mile per lane (vpmpl)
V = peak hour volume, in vehicles per hour (vph)
N = number of travel lanes
S = average travel speed, in miles per hour (mph)

The vehicle density on a segment is correlated to level of service as shown in Table 3. The CMP specifies that a capacity of 2,300 vehicles per hour per lane (vphpl) be used for mixed-flow lane segments that are three lanes or wider in one direction, and a capacity of 2,200 vphpl be used for mixed-flow lane segments that are two lanes wide in one direction. A capacity of 1,650 vphpl was used for high occupancy vehicle (HOV) lanes. The CMP defines an acceptable level of service for freeway segments as LOS E or better. The freeway segment analysis is presented for informational purposes.

Table 3
Freeway Segment Level of Service Definitions Based on Density

Level of Service	Description	Density (vehicles/mile/lane)
A	Average operating speeds at the free-flow speed generally prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream.	11.0 or less
B	Speeds at the free-flow speed are generally maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high.	11.1 to 18.0
C	Speeds at or near the free-flow speed of the freeway prevail. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more vigilance on the part of the driver.	18.1 to 26.0
D	Speeds begin to decline slightly with increased flows at this level. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels.	26.1 to 46.0
E	At this level, the freeway operates at or near capacity. Operations in this level are volatile, because there are virtually no usable gaps in the traffic stream, leaving little room to maneuver within the traffic stream.	46.1 to 58.0
F	Vehicular flow breakdowns occur. Large queues form behind breakdown points.	greater than 58.0

Source: VTA Traffic Level of Service Analysis Guidelines (June 2003), Table 1.
Transportation Research Board, 2000 Highway Capacity Manual (Washington, D.C., 2000)

Report Organization

This report has a total of five chapters. Chapter 2 describes existing transportation conditions including VMT of the existing land uses in the proximity of the project, the existing roadway network, transit service, bicycle and pedestrian facilities. Chapter 3 describes the CEQA transportation analysis, including the project VMT impact analysis, mitigation measures to reduce the VMT impact, and cumulative transportation impact assessment. Chapter 4 describes the local transportation analysis including operations of study intersections, the methods used to estimate project-generated traffic, the project's effects on the transportation system, and an analysis of other transportation issues including site access and circulation, freeway ramps, parking, transit services, bicycle and pedestrian facilities, and vehicle queuing. Chapter 5 describes the existing and future operations of the freeway segments in the study area.

2. Existing Transportation Conditions

This chapter describes the existing conditions of the transportation system within the study area of the project. It presents the vehicle miles traveled (VMT) of the existing land uses in the proximity of the project and describes transportation facilities in the vicinity of the project site, including the roadway network, transit service, and pedestrian and bicycle facilities. The analysis of existing intersection operations is included as part of the Local Transportation Analysis (Chapter 4).

VMT of Existing Land Uses

To determine whether a project would result in CEQA transportation impacts related to VMT, the City has developed the San Jose VMT Evaluation Tool ("sketch tool") to streamline the analysis for residential, office, and industrial projects. Based on the sketch tool and the project's APN, the existing VMT for employment uses in the project vicinity is 13.38 per employee, and the existing VMT for residential uses in the project vicinity is 12.34 per capita. The current regional average VMT for employment uses is 14.37 per employee and the citywide average VMT for residential uses is 11.91 per capita (see Table 1). Thus, the VMT levels of existing employment uses in the project vicinity are less than the average VMT levels, and the VMT levels of existing residential uses in the project vicinity are higher than the average VMT levels. Chapter 3 presents the sketch tool summary report for the project.

Existing Roadway Network

Regional access to the project site is provided via State Routes 17 and 85. These facilities are described below.

SR-17 is a six-lane freeway in the vicinity of the site. It extends south to Santa Cruz and north to I-280 in San Jose, at which point it makes a transition into I-880 to Oakland. Access to the site from SR 17 is provided via its interchange with San Tomas Expressway/Camden Avenue.

SR-85 is a six-lane freeway (two mixed-flow lanes and one high occupancy vehicle (HOV) lane in each direction) in the vicinity of the site. It extends from its starting point at US-101 in South San Jose westward and northward to Mountain View, where it ends as it again merges with US-101. Access to the project site is provided via its interchange with Union Avenue.

Local access to the site is provided by Union Avenue and Camden Avenue. These roadways are described below.

Camden Avenue is a four- to six-lane Grand Boulevard that is located approximately 2,000 feet to the north of the project site. It extends from Almaden Expressway in South San Jose north-eastward to SR 17 in Campbell, at which point it transitions into San Tomas Expressway. Camden Avenue has a

posted speed limit of 40 mph in the project vicinity and consists of three travel lanes in each direction. In the study area, Camden Avenue has continuous sidewalks on both sides of the street with on-street parking permitted along some roadway segments. There are no bicycle lanes provided on Camden Avenue. Given the high traffic volumes, bicyclists should ride with extreme caution on Camden Avenue.

Union Avenue is a two- to four-lane north-south City Connector Street that provides direct access to the site. It extends from Campbell Avenue in Campbell to Los Gatos, where it terminates at Blossom Hill Road. In the study area, Union Avenue has a posted speed limit of 35 mph and consists of two travel lanes in each direction with a center two-way left-turn (TWLT) lane. Continuous sidewalks are present on the west side of Union Avenue in the project vicinity. No sidewalks are present on the east side of Union Avenue between SR-87 and 470 feet north of Charmeran Avenue. Bicycle lanes are provided in both directions on Union Avenue in the project vicinity. On street parking is not permitted along Union Avenue in the study area. The project site currently has two driveways on Union Avenue.

Existing Pedestrian and Bicycle Facilities

Pedestrian facilities in the project area consist primarily of sidewalks along the streets. Sidewalks are found along virtually all previously described local roadways in the study area, with the exception of short intermittent segments of Union Avenue, south of Camden Avenue, where sidewalks are missing along one side of the street. Additionally, sidewalks are missing along several of the local residential streets located to the east of the project site. Other pedestrian facilities include crosswalks with pedestrian signal heads and push buttons at all the signalized intersections in the study area.

Bicycle facilities in the vicinity of the project site are shown on Figure 5. Bicycle facilities are divided into three classes of relative significance. Class I bikeways are bike paths that are physically separated from motor vehicles and offer two-way bicycle travel on a separate path. Class II bikeways are striped bike lanes on roadways that are marked by signage and pavement markings. Class III bikeways are bike routes and only have signs to help guide bicyclists on recommended routes to certain locations.

Class II striped bike lanes are provided on the following roadways:

- *Union Avenue* – between south of SR 85 and Bascom Avenue
- *Leigh Avenue* – between Blossom Hill Road and Curtner Avenue
- *Los Gatos-Almaden Road* – between Los Gatos Boulevard and Harwood Road

There is a Class I bikeway, the Los Gatos Creek Trail, that runs along the west side of SR 17, extending from Lexington Reservoir south of Los Gatos to Meridian Avenue in San Jose. The trail can be accessed from Camden Avenue, although there are no bike lanes on Camden Avenue.

Transit Service

Existing transit services near the project site are provided by the Santa Clara Valley Transportation Authority (VTA) (see Figure 6). The study area is served directly by one express bus route, two limited stops bus routes and three local routes. The transit routes that run through the study area are listed in Table 4, including their route description and commute hour headways (frequency of stops). The study area is well served by buses.

The nearest bus stop locations to the project site include bus stops along Union Avenue served by Route 62. The nearest bus stop served by Route 62 southbound is located along the project frontage and the nearest bus stop served by Route 62 northbound is located north of Charmeran Avenue in front of the Cambrian Park Plaza Shopping Center. The closest bus stops serving Routes 37, 101, 328 and 330 are located at the intersection of Camden Avenue and Union Avenue, approximately a half-mile north of the project site, and the closest bus stops serving Route 27 are located at the intersection Samaritan Drive and Union Avenue, approximately a quarter-mile south of the project site.

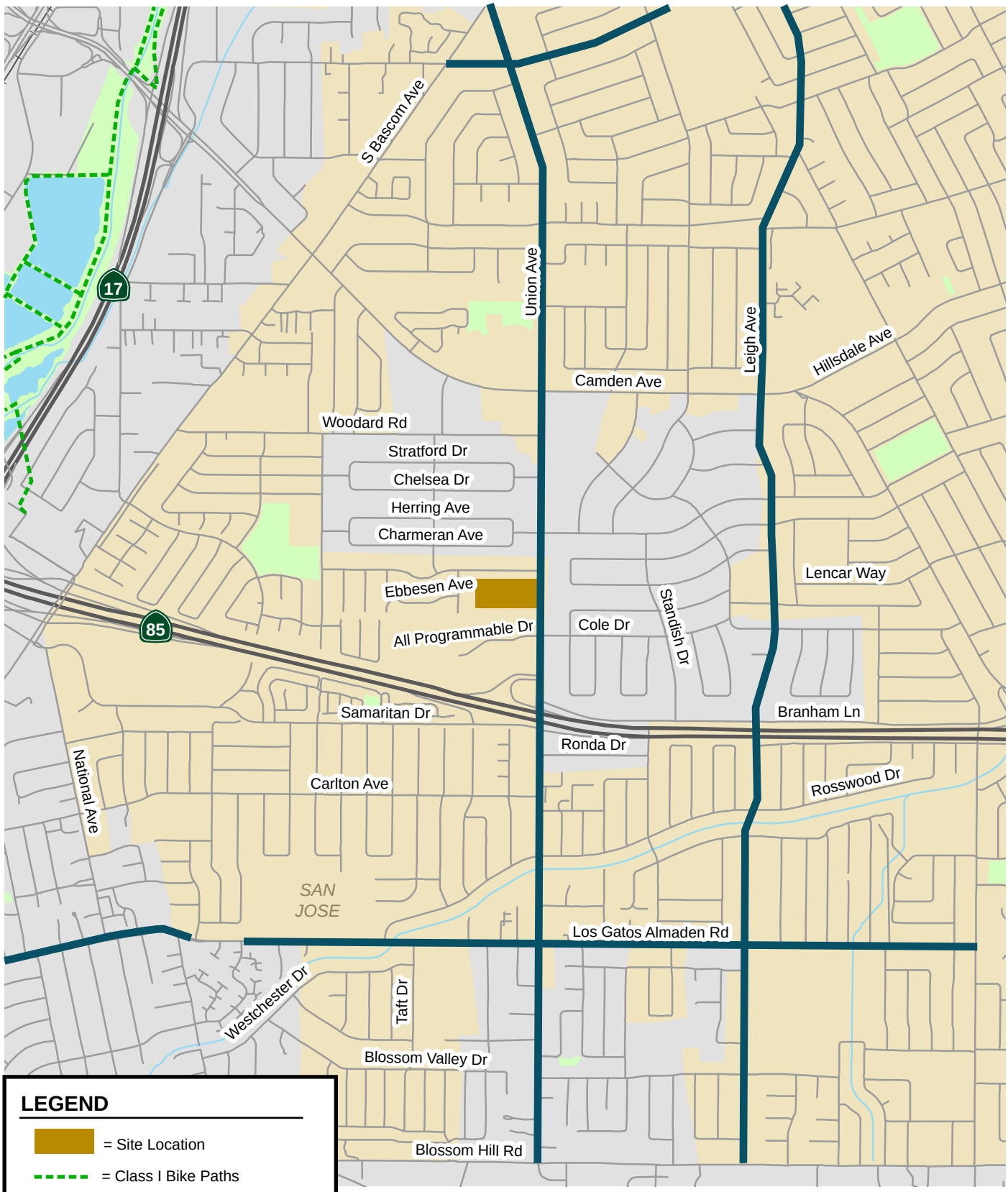


Figure 5
Existing Bicycle Facilities

NORTH
Not to Scale

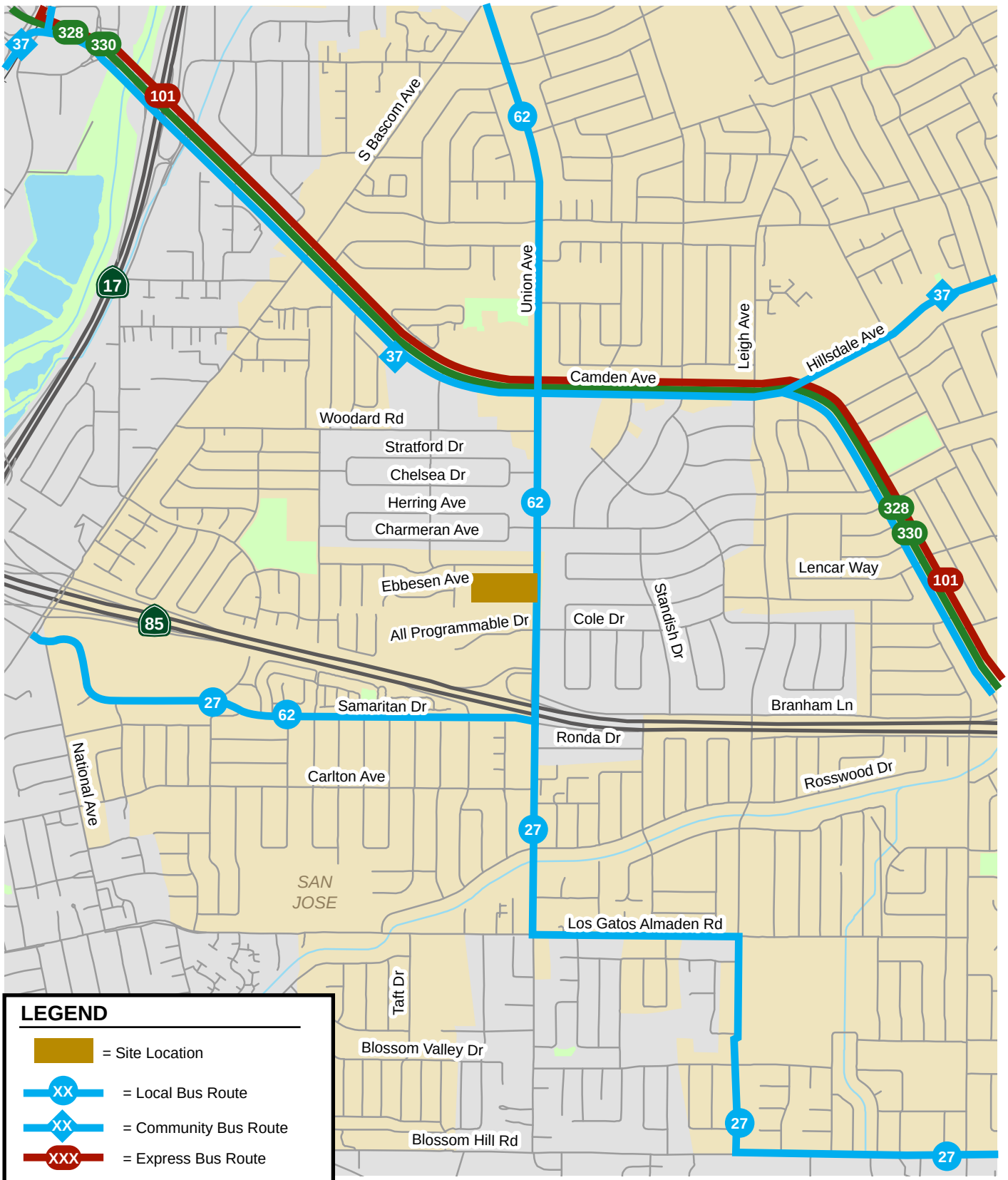


Figure 6
Existing Transit Services

Table 4
Existing Bus Service

Transit Route	Route Description	Hours of Operation	Headway [1]
Local Route 27	Good Samarita Hospital to Kaiser	6:00 am - 8:00 pm	30 mins
Local Route 37	West Valley College to Capitol Light Rail	7:00 am - 10:00 pm	30 mins
Local Route 62	Good Samarita Hospital to Sierra & Piedmont	6:14 am - 10:00 pm	30 mins
Express Route 101	Camden & Highway 85 to Palo Alto	6:17 am - 5:10 pm	55-60 mins
Limited Route 328	Almaden Expressway & Camden to Lockheed Martin/Moffett Industrial Park	5:57 am - 5:57 pm	20-25 mins
Limited Route 330	Almaden Expressway & Camden to Tasman Drive	6:41 am - 6:18 pm	20 - 30 mins

Notes:
[1] Approximate headways during peak commute periods.

Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 7.

Observed Existing Traffic Conditions

Traffic conditions were observed in the field to identify existing operational deficiencies. Field observations revealed the following operational problems:

During the AM peak hour, it was observed that the queue length for the westbound left-turn movement on Camden Avenue to southbound Union Avenue extended beyond the existing left-turn pocket.

During the PM peak hour, the eastbound vehicular queue on Camden Avenue constantly extended back from Leigh Avenue past Union Avenue. With the constant eastbound queue along Camden Avenue, westbound traffic on this segment of Camden Avenue was observed to have difficulty making a left-turn onto New Jersey Avenue, Bercaw Lane, and the Cambrian Park Plaza Shopping Center.

No excessive queues were observed along Union Avenue. Queue lengths at the SR 85 on-ramps at Union Avenue were adequately accommodated by the ramps.

All other study intersections were observed to operate without any noteworthy operational issues.

Harker Middle School - 4525 Union Ave

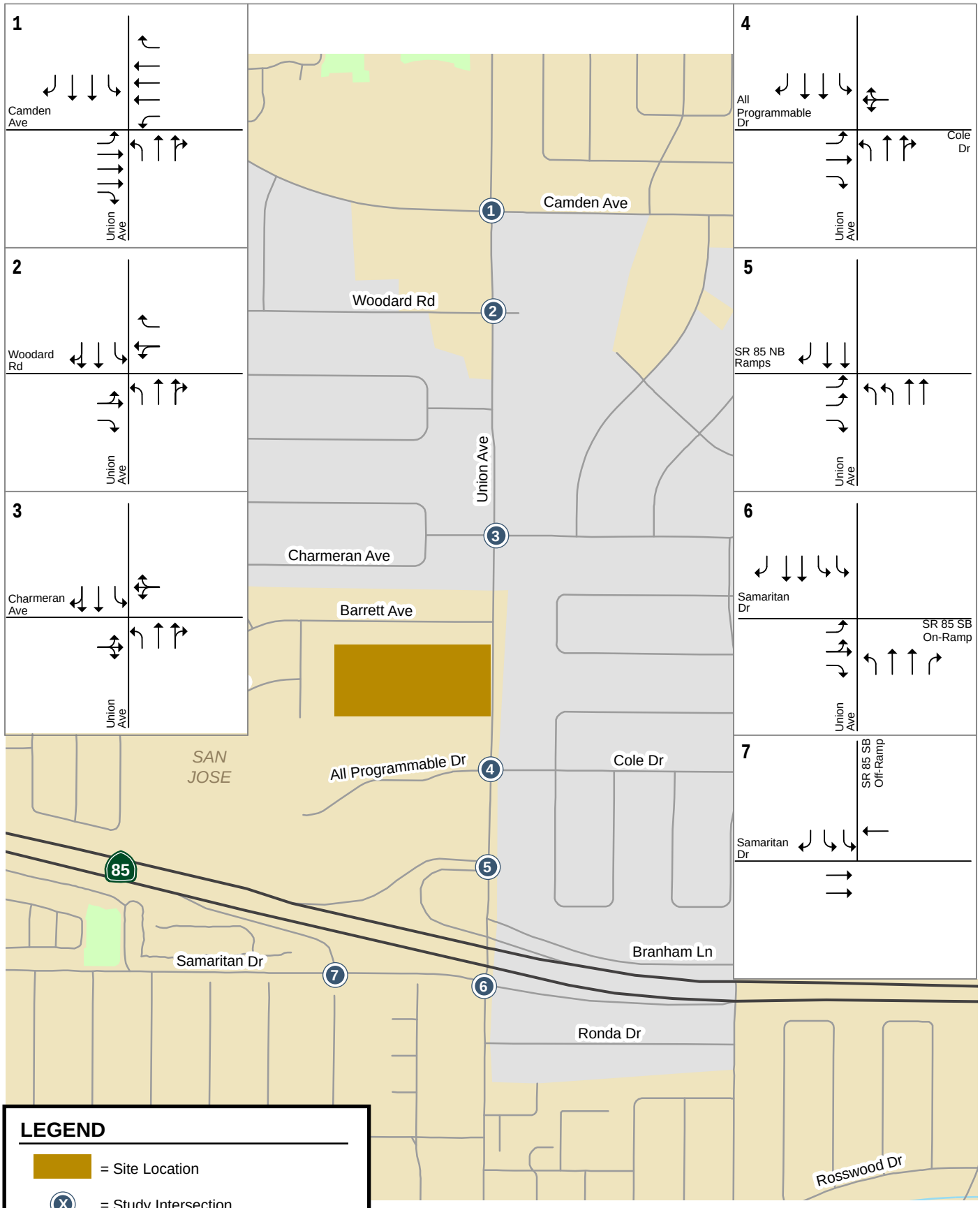


Figure 7
Existing Lane Configurations

HEXAGON

NORTH
Not to Scale

3. CEQA Transportation Analysis

This chapter describes the CEQA transportation analysis, including the VMT threshold of significance, the project-level VMT impact analysis results, mitigation measures to reduce a VMT impact, and the cumulative transportation impact analysis used to determine consistency with the City's General Plan.

Project-Level VMT Impact Analysis

Project VMT

The project-level impact analysis under CEQA uses the VMT metric to evaluate a project's transportation impacts by comparing against the VMT thresholds of significance as established in the Transportation Analysis Policy. The San Jose VMT Evaluation Tool (sketch tool) is used to estimate the project VMT, based on the project location (APN), type of development, project description, and proposed trip reduction measures. Because the City has not established thresholds of significance for private schools, the project cannot be evaluated directly using the City's sketch tool. Accordingly, the VMT analysis for the proposed middle school project was conducted by converting the project trip generation estimates (trips generated by school staff and parents of students) to an equivalent office development (based on square footage) in the sketch tool. The threshold of significance for general employment uses (see Table 1 in Chapter 1) is used for the VMT analysis. The VMT threshold is the existing regional average VMT level (14.37 per employee) minus 15 percent, which is 12.22 VMT per employee.

Based on trip generation counts conducted on February 6, 2018, the existing Harker School site (with an enrollment of approximately 600 students) generates 906 trips during the AM peak hour. This is equivalent to trips that would be generated by 781,000 square feet of office use, using the average AM peak hour rate of 1.16 trips per 1,000 square feet for General Office (Land Use Code 710). Note that the AM peak hour trip generation of the middle school was utilized for the VMT analysis because the AM peak hour trip generation is much greater (more than twice the number of peak hour vehicle trips) than the PM peak hour trip generation.

The project VMT estimated by the sketch tool is 13.83 per employee/student for the office equivalency. The project VMT, therefore, exceeds the threshold of 12.22 VMT per employee/student.

As part of the project impact analysis, the City is requesting a map that shows local similar land uses. Figure 8 shows the location of private schools in the project vicinity. There are nine similar schools within a 3-mile radius of the project site.

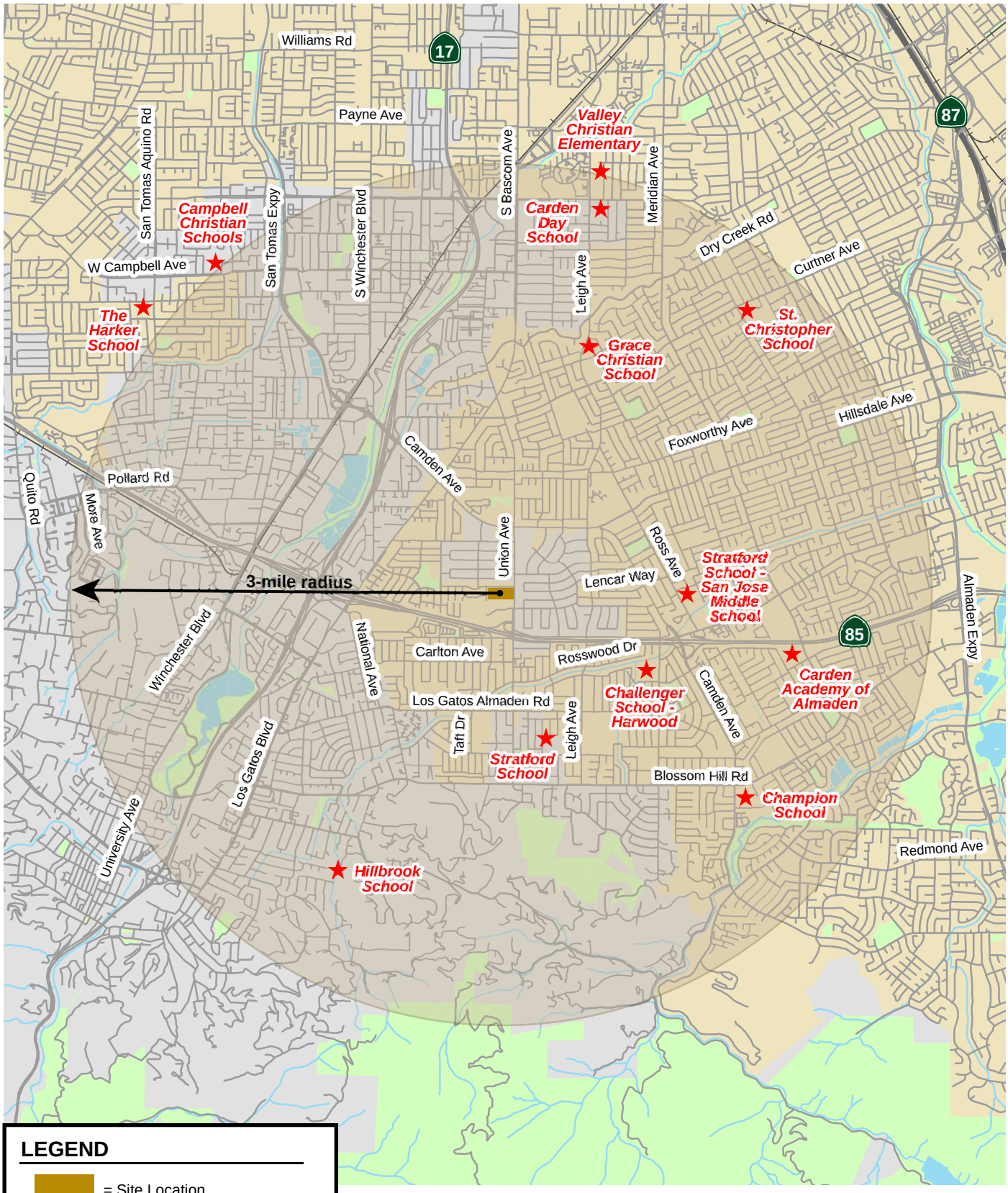


Figure 8
Private Schools in the Project Vicinity

Project Impacts and Mitigation Measures

Project Impact: The VMT generated by the project (13.83 VMT per employee/student) would exceed the threshold of 12.22 VMT per employee/student; therefore, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the VMT impact. According to the *Transportation Analysis Handbook*, projects located in areas where the existing VMT is above the established threshold (such as the project study area) are referred to as being in "high-VMT areas", and projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the extent possible.

Mitigation Measures: Based on the four VMT reduction strategy tiers included in the sketch tool, it is recommended the project implement the following mitigation measures (TDM-based improvements) to reduce the significant VMT impact:

- **TDM Programs** – The project should operate a free direct shuttle service and implement a School Pool program. These TDM programs are described in more detail below.
    - **Free Direct Shuttle Service**. In addition to the intercampus shuttle program already provided, wherein shuttles transport students from one Harker campus to another, Harker School should provide free shuttle service from various safe and convenient locations to the new Harker Union Avenue campus. Direct shuttle service reduces drive-alone commute trips, thereby reducing VMT. The shuttle stop locations have not yet been determined. Park-and-Ride lots, transit stations and shopping center parking lots work well as shuttle stops and should be considered.
    - **School Pool Program**. A School Pool is a way for families to share the responsibility of safely transporting their children to and from school, as well as reduce traffic congestion and air pollution. A School Pool program is a useful tool to help match parents who transport students to schools without a school bus program, such as private schools, where most students do not have the opportunity to walk or ride their bike to school. The School Pool program for Harker School would be open to all families and would include carpooling and organizing small groups to travel together via public transit. Note that Harker currently partners with Zum, a ride-sharing (carpool) service that serves school families in the Bay Area. School Pools include at least one adult who transports and/or travels with the participating children. The Safe Routes to Schools website (www.saferoutestoschools.org) provides a comprehensive School Pool Guide that can be downloaded.
    - **TDM Implementation**. Harker School will be responsible for implementing and promoting the shuttle and School Pool programs, including helping families find good carpool matches. The school's TDM program information will be distributed to all families of Harker students and will be available on the school website. A TDM coordinator will be appointed and their contact information will be provided on the school website.

As previously described, Harker School currently operates a free intercampus shuttle between their four campuses – preschool, lower grades, and middle and high school – during both the morning and evening. This provides the convenience for parents with multiple children to drop off and pick up their children from the one campus closest to their home. The school shuttles drive the kids to their respective schools. In addition, Harker school currently provides bus service from four locations: The Peninsula, Silver Creek, Fremont and the Santa Clara Caltrain Station. The addition of the TDM measures described above would reduce the project VMT to 10.37 per employee/student, equivalent to approximately a 25% reduction in VMT, which would reduce the project impact to a less than significant level.

Figure 9 shows the VMT evaluation summary report generated by the City of San Jose's VMT Evaluation Tool.

Cumulative Impact Analysis

Projects must demonstrate consistency with the Envision San Jose 2040 General Plan to address cumulative impacts. Consistency with the City's General Plan is based on the project's density, design, and conformance to the General Plan goals and policies. If a project is determined to be inconsistent with the General Plan, a cumulative impact analysis is required as part of the City's *Transportation Analysis Handbook*.

According to the San Jose 2040 General Plan, the project is designated as Public/Quasi-Public Land Use (PQP). The Public/Quasi-Public land uses are used to support the needs of the community through governmental, civic, cultural, health, education, and infrastructure uses. This designation includes properties owned by agencies such as schools, libraries, fire stations, and privately-owned transportation and utility corridors such as power transmission line. The project would not require a General Plan Amendment.

The project is consistent with the General Plan goals and policies for the following reasons:

- The project site is adjacent to a bus stop and bicycle lanes on Union Avenue.
- The project would increase the equivalent employment/student density in the project area.
- The project would implement a TDM plan that includes shuttle service and a School Pool program.
- The project would provide a free intercampus shuttle for all students and faculty.
- The project would provide shuttle service aimed at reducing VMT.

Therefore, based on the project description, the proposed project would be consistent with the *Envision San Jose General Plan.* The project would be considered part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

Figure 9
San Jose VMT Evaluation Tool Summary Report

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name: Harker Middle School
Location: 4525 Union Avenue, San Jose, CA
Parcel: 42107003 Parcel Type: Urban Low Transit
Proposed Parking: Vehicles: 110 Bicycles: 0

Tool Version: 3/14/2018
Date: 1/7/2019

LAND USE:

Residential:		Percent of All Residential Units	
Single Family	0 DU	Extremely Low Income (≤ 30% MFI)	0 % Affordable
Multi Family	0 DU	Very Low Income (> 30% MFI, ≤ 50% MFI)	0 % Affordable
Subtotal	0 DU	Low Income (> 50% MFI, ≤ 80% MFI)	0 % Affordable
Office:	781 KSF		
Retail:	0 KSF		
Industrial:	0 KSF		

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density
- Existing Density (DU/Residential Acres in half-mile buffer) 4
- With Project Density (DU/Residential Acres in half-mile buffer) 4

Increase Development Diversity
- Existing Activity Mix Index 0.75
- With Project Activity Mix Index 0.74

Integrate Affordable and Below Market Rate
- Extremely Low Income BMR units . . . . . 0 %
- Very Low Income BMR units . . . . . 0 %
- Low Income BMR units . . . . . 0 %

Increase Employment Density
- Existing Density (Jobs/Commercial Acres in half-mile buffer) 48
- With Project Density (Jobs/Commercial Acres in half-mile buffer) 86

Tier 2 - Multimodal Infrastructure

Tier 3 - Parking

Tier 4 - TDM Programs

School Pool Program *(In Coordination with SJ)*

Operate Free Direct Shuttle Service *(In Coordination with SJ)*
- Percent of Eligible Eemployees . . . . . 100 %

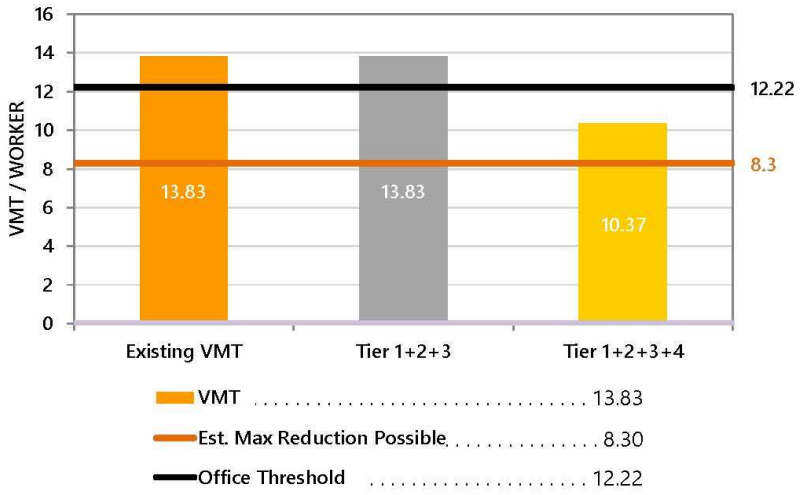
Page 1 of 2

Figure 9 (continued)
San Jose VMT Evaluation Tool Summary Report

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

EMPLOYMENT ONLY

The tool estimates that the project would generate per non-industrial worker VMT below the City's threshold. There are selected strategies that require coordination with the City of San Jose to implement.



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4. Local Transportation Analysis

This chapter describes the local transportation analysis including the method by which project traffic is estimated, intersection operations analysis for background plus project conditions, any adverse effects to intersection level of service caused by the project, intersection vehicle queuing analysis, site access and on-site circulation review, effects on bicycle, pedestrian, and transit facilities, and parking.

Intersection Operations Analysis

The intersection operations analysis is intended to quantify the operations of San Jose intersections and to identify potential negative effects due to the addition of project traffic. Information required for the intersection operations analysis related to project trip generation, trip distribution, and trip assignment are presented in this section. The study intersections are located in the City of San Jose and are evaluated based on the City of San Jose's intersection analysis methodology and standards in determining potential adverse operational effects due to the project, as described in Chapter 1.

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

Since the proposed Harker middle school will be relocating from its existing location at the Blackford Campus in San Jose to the Union Avenue site, Hexagon conducted a trip generation count on February 6, 2018 at the existing Harker Middle School on Blackford Avenue to calculate project trips. The survey quantified the existing vehicle trips generated by the middle school during the AM and PM peak hours of adjacent street traffic (7-9 AM and 4-6 PM). Based on these counts, the existing middle school generates 1.51 vehicular trips per student during the AM peak hour and 0.70 vehicular trips per student during the PM peak hour.

Trip Adjustments and Reductions

According to the *Transportation Analysis Handbook*, the VMT reduction resulting from implementing the VMT reduction strategies in the sketch tool should be included as part of the trip generation estimates. As discussed in Chapter 3, by implementing the VMT reduction strategies, the VMT level at the project site would be reduced from the existing level of 13.83 VMT per employee/student to 10.37 VMT per employee/student, which is approximately a 25% reduction in VMT. This reduction was applied to the

trip generation estimates. With the 25% trip reduction, the project would generate 679 trips during the AM peak hour and 315 trips during the PM peak hour.

The existing preschool's trip generation can be credited against the proposed middle school trip generation estimates. The existing preschool's trip generation was obtained from AM and PM peak hour driveway counts at the project site on February 6, 2018. Based on the driveway counts, the preschool currently generates 222 vehicular trips during the AM peak hour and 103 vehicular trips during the PM peak hour.

Net Project Trips

After applying appropriate trip reductions and existing site trip credits, the project would generate 457 new trips during the AM peak hour and 212 new trips during the PM peak hour (see Table 5).

Table 5
Project Trip Generation Estimates

		AM Peak Hour				PM Peak Hour			
Land Use	Size	Rate	In	Out	Total Trips	Rate	In	Out	Total Trips
Proposed Harker Middle School[1]	600 Students	1.51	471	435	906	0.70	176	244	420
Reduction due to Shuttle Busses [2]			*(118)*	*(109)*	*(227)*		*(44)*	*(61)*	*(105)*
Existing PreSchool [3]	*120 Students*		*(128)*	*(94)*	*(222)*		*(42)*	*(61)*	*(103)*
Net New Trips			**225**	**232**	**457**		**90**	**122**	**212**
	Non-Working Parent (20%)		*45*	*46*	*91*		*18*	*24*	*42*
	Working Parents (80%)		*180*	*186*	*366*		*72*	*98*	*170*

Notes:

1. AM and PM peak hour trip rates were developed based on trip generation counts conducted on 02/06/2018 at the Harker Middle School (3800 Blackford Avenue).

2. The project will implement a robust shuttle bus program to reduce the project trip generation by at least 25%. This reduction would be in addition to the reduction that is currently being achieved with the existing shuttle bus program at Blackford campus.

3. AM and PM peak hour trip rates were developed based on trip generation counts conducted on 02/06/2018 at the existing preschool that operates on the project site.

Trip Distribution and Assignment

The directional distribution of site-generated traffic was forecast separately for non-working and working parents based on the combination of zip code locations of existing Harker School students enrolled in grades 5, 6 and 7 and existing commute travel patterns on the surrounding roadway network. More than 60% of the students enrolled in these grades live north/west of the proposed project and would primarily use State Route 85 or San Thomas Expressway/Camden Avenue to access the project site. For developing the trip distribution patterns for non-working and working parents, it was assumed that 20% of the students who are driven to school would be dropped off/picked up by a non-working parent and 80% of the students who are driven to school would be dropped off/picked up by a working parent. For non-working parents, it was assumed that during both the AM and PM peak hours, the origin of the inbound project trip and the destination of the outbound project trip would be the student's home (see Figure 10). For working parents, during the AM peak hour, the origin of the inbound trip would be the student's home and the destination of the outbound trip would be the parent's employment location (see Figure 11).The trip distribution pattern would reverse during the PM peak hour for working parents, where the inbound trip would originate at the parents employment location and the outbound trip would

terminate at the student's home (see Figure 12). Trip distribution patterns to and from places of employment were developed based on the existing travel patterns on the surrounding roadway network that reflect typical weekday AM and PM commute patterns.

The potential traffic patterns that would occur during the AM and PM peak hours at the project driveways were considered in the assignment of project trips to the surrounding streets. The project would install a new traffic signal on Union Avenue south of the existing northern project driveway. The project trips were assigned under the assumption that the new signal design would include a raised median island on Union Avenue. Thus, the southern driveway would be restricted to inbound and outbound right-turn movements only. The project trip assignment is shown on Figure 13.

Future Transportation Network

It is assumed in this analysis that the transportation network under background conditions would be the same as the existing conditions transportation network. Under background plus project conditions and cumulative conditions, it is assumed that a new traffic signal would be installed on Union Avenue, south of the existing northern project driveway location.

Traffic Volumes Under All Scenarios

Existing Traffic Volumes

Available traffic count data were obtained from the City of San Jose. New peak-hour counts were collected on February 6th, 2018 for intersections where the available data was outdated (more than two years old). As required by the VTA CMP, the PM peak hour traffic volumes at the CMP study intersection were obtained directly from the latest version of the CMP Monitoring Report. The existing peak-hour intersection volumes are shown on Figure 14. New intersection turning-movement counts conducted for this analysis are presented in Appendix A.

Background Traffic Volumes

Background peak-hour traffic volumes were estimated by adding to existing traffic volumes the trips generated by nearby approved but not yet completed or occupied projects (see Figure 15). Approved project trips and approved project information were obtained from the City of San Jose (see Appendix B).

Background Plus Project Traffic Volumes

Project trips were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 16).

Cumulative Traffic Volumes

Traffic volumes under cumulative conditions (see Figure 17) were estimated by adding to the background traffic volumes the trips from proposed but not yet approved (pending) development projects within the City of San Jose plus trips generated by the proposed project. Pending project data were obtained from the City of San Jose and include the following:

- **Cambrian Park Plaza Mixed-Use Village**: Construction of 238 hotel rooms, 150,000 square feet (s.f.) of office space, 115,000 s.f. of commercial space, 280 multi-family residential units, 70 townhomes and a 110,000 s.f. convalescent hospital.
- **Good Samaritan Hospital Expansion Project (2425 Samaritan Drive)**: Construction of a 550,000 s.f. hospital facility with 421 beds and 210,000 s.f. of medical office space.

The approved project trips, proposed project trip assignment, pending (cumulative) project trips, and traffic volumes for all traffic scenarios evaluated are tabulated in Appendix C.

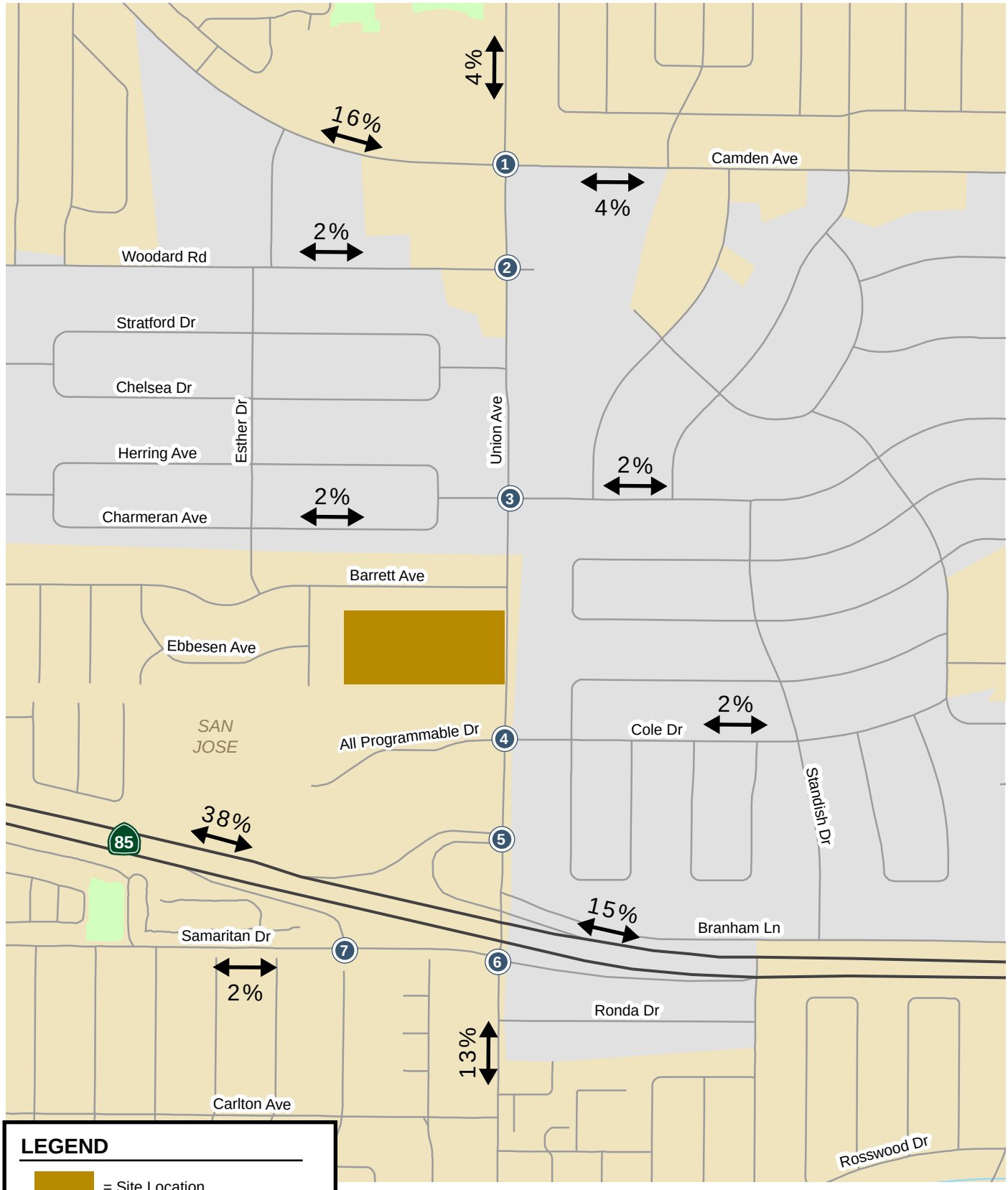


Figure 10
Project Trip Distribution (Non-Working Parents)

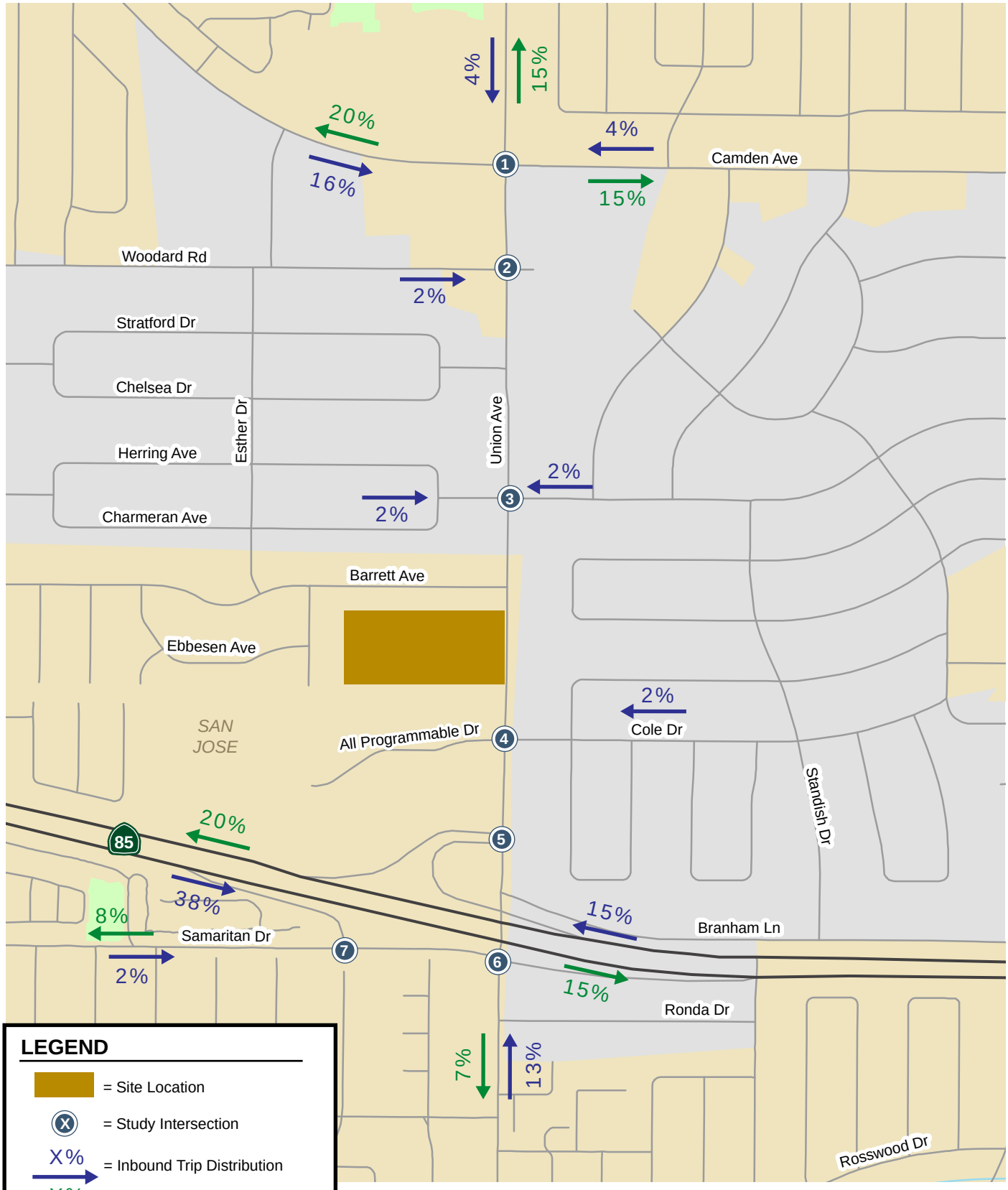


Figure 11
Project Trip Distribution for Working Parents (AM)

Figure 12
Project Trip Distribution for Working Parents (PM)

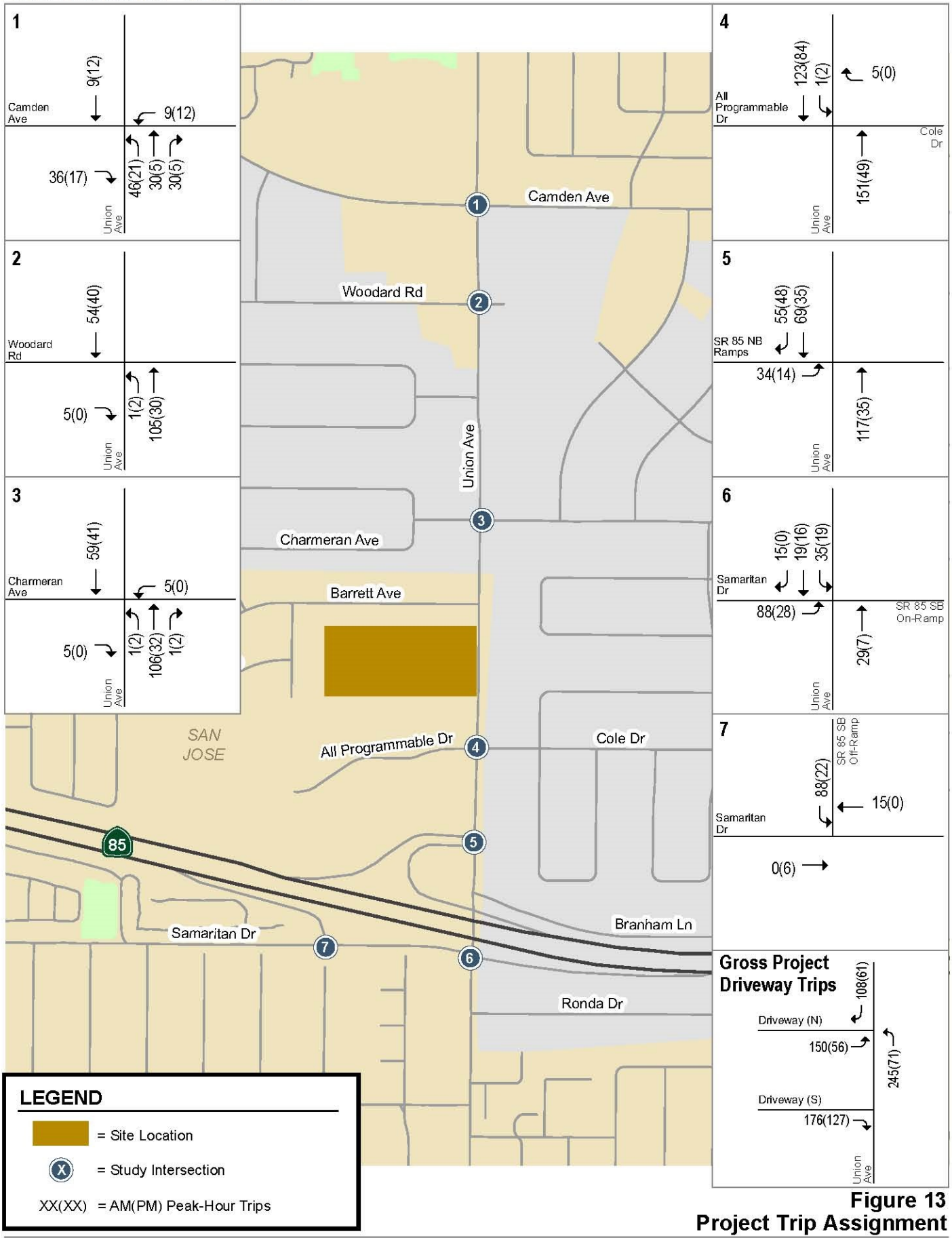


Figure 13
Project Trip Assignment

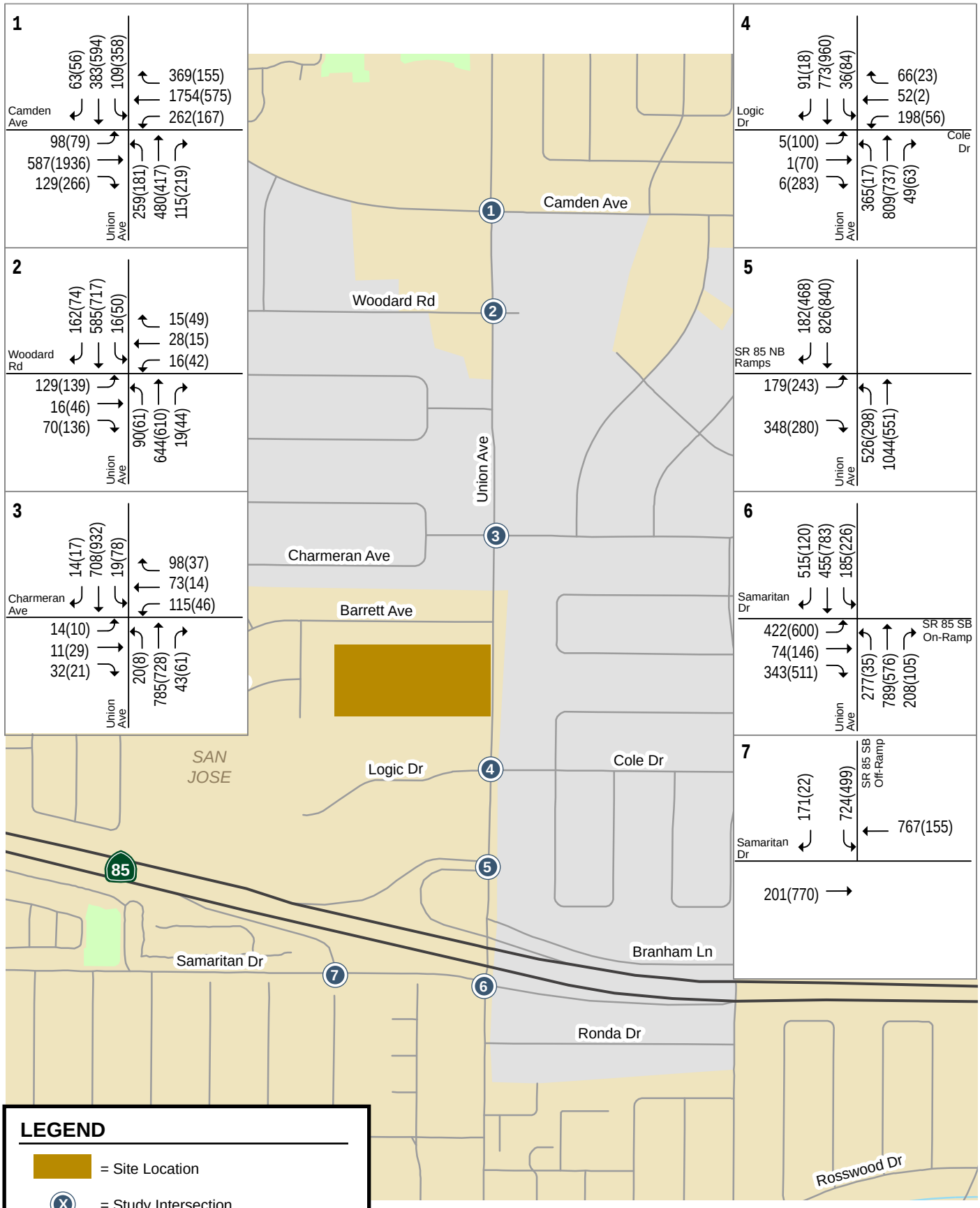


Figure 14
Existing Traffic Volumes

HEXAGON

NORTH
Not to Scale

Harker Middle School - 4525 Union Ave

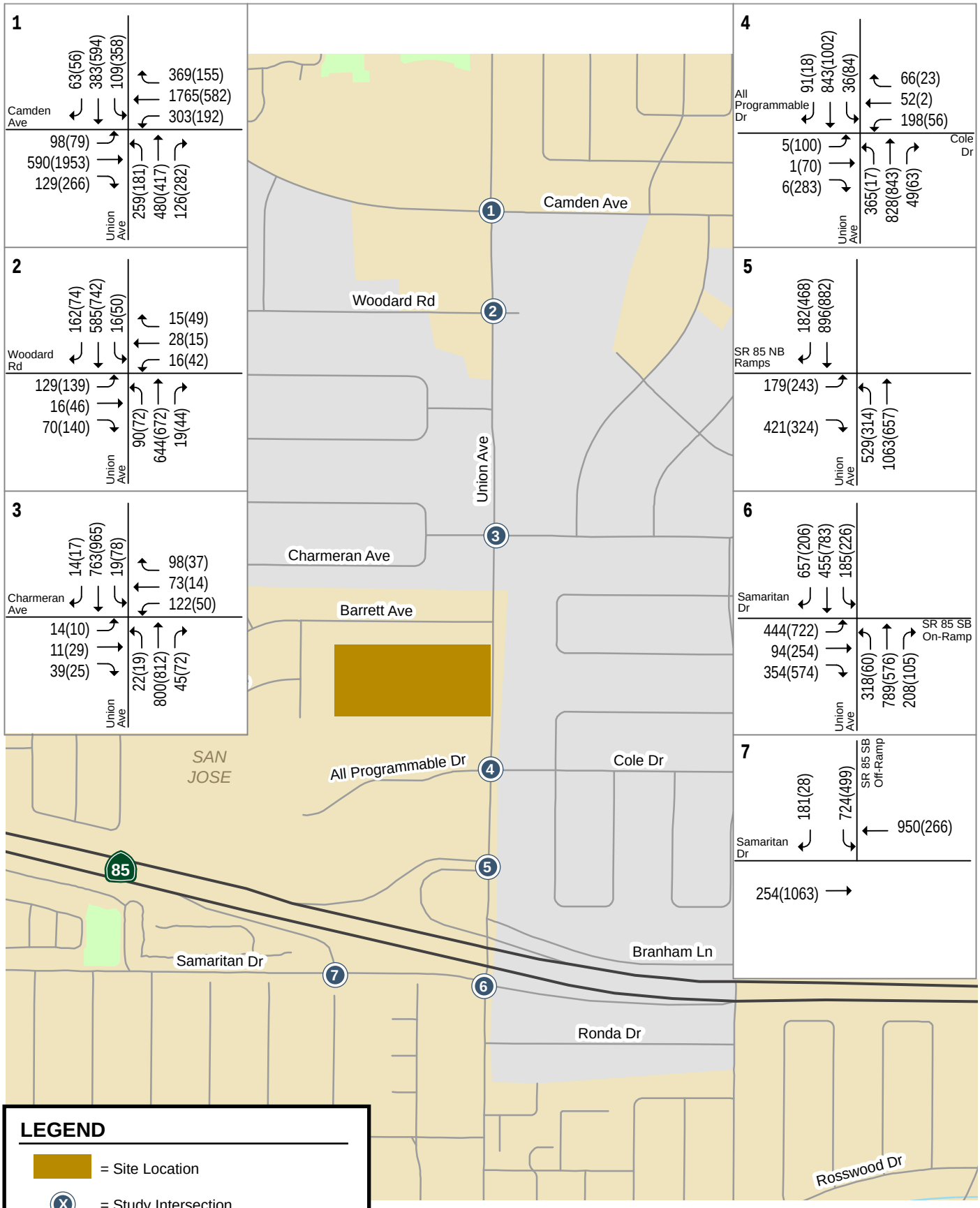


Figure 15
Background Traffic Volumes

HEXAGON

NORTH
Not to Scale

Harker Middle School - 4525 Union Ave

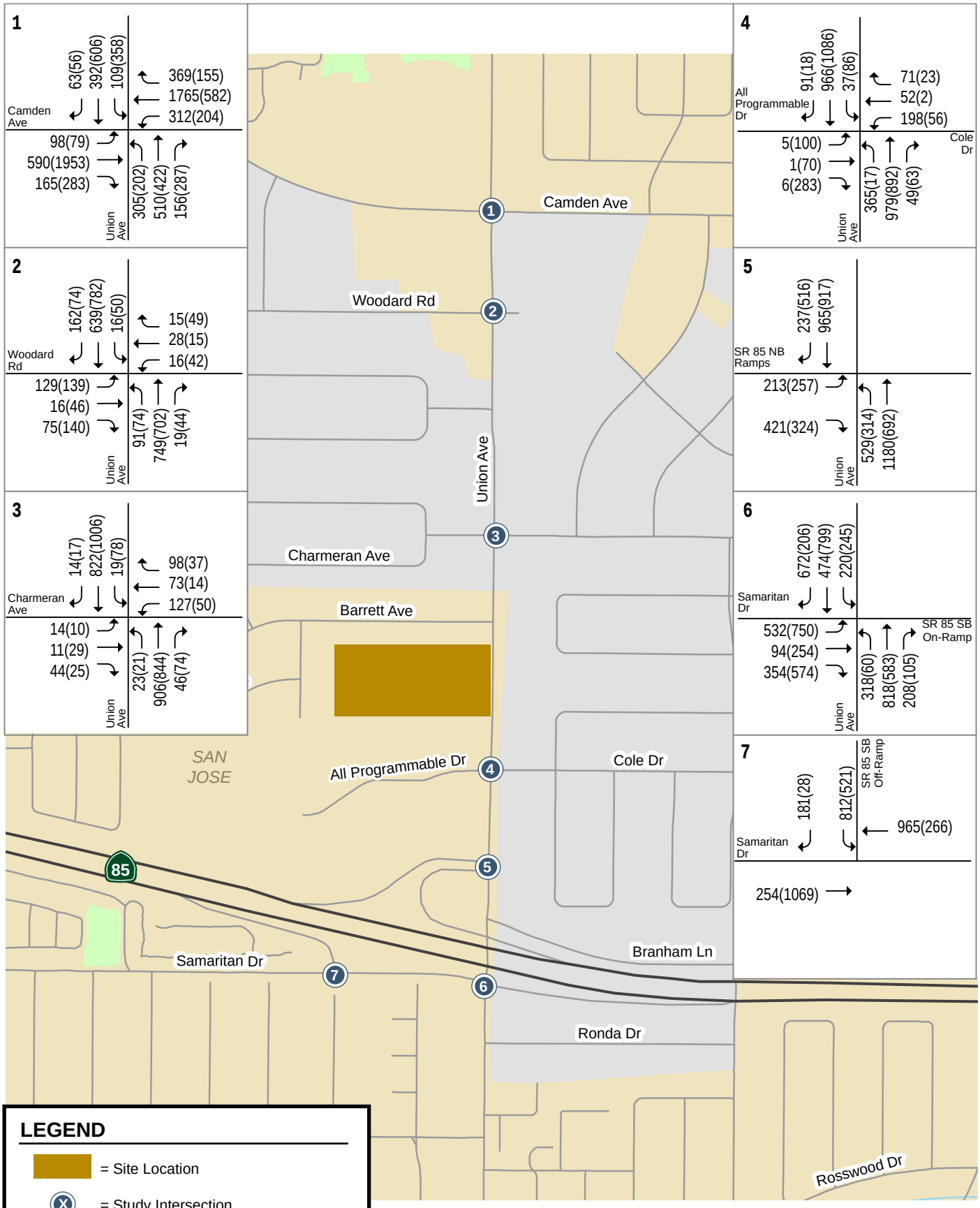


Figure 16
Background Plus Project Traffic Volumes

HEXAGON

NORTH
Not to Scale

Harker Middle School - 4525 Union Ave

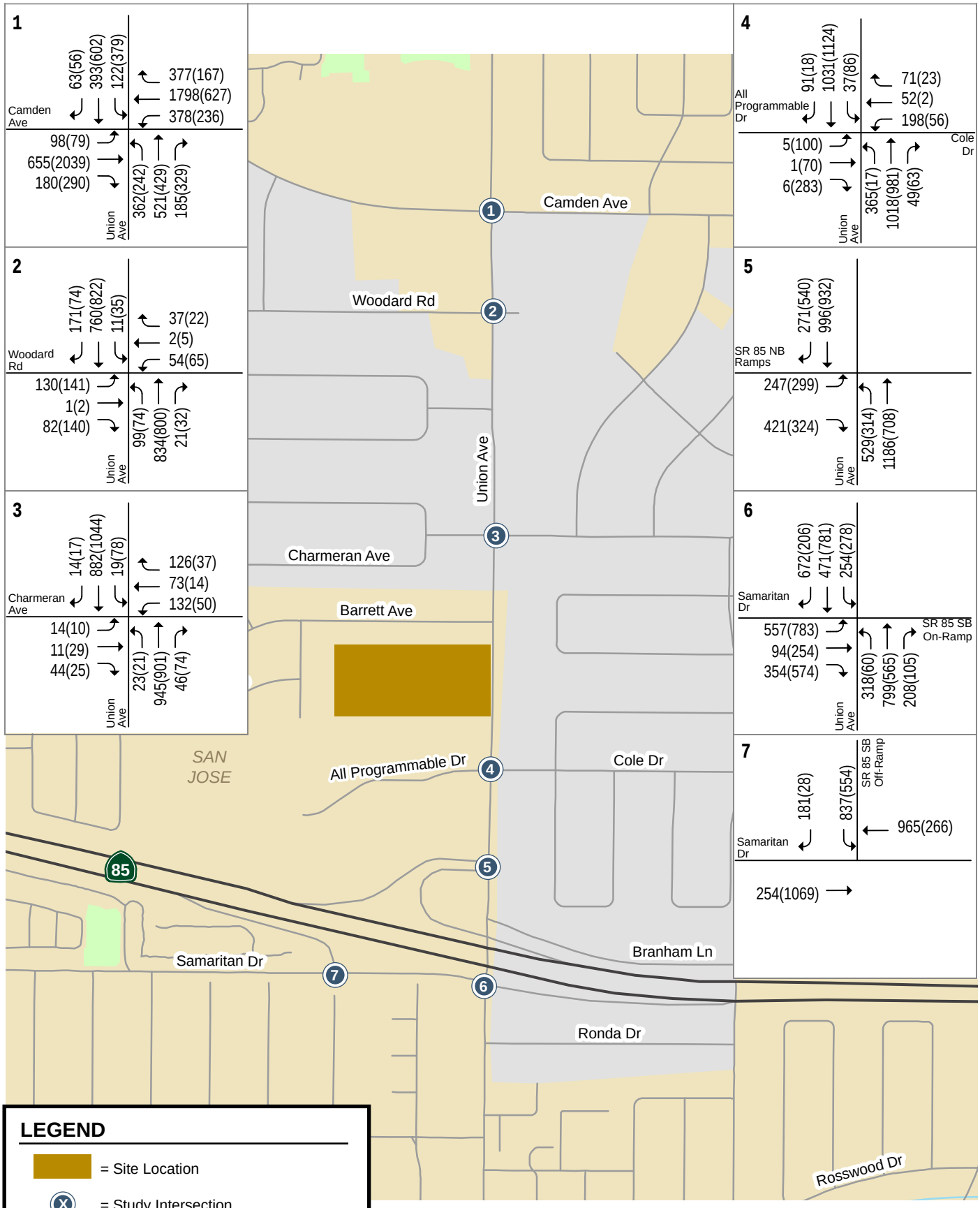


Figure 17
Cumulative Traffic Volumes

HEXAGON

Existing Intersection Traffic Operations

Intersection levels of service were evaluated against the standards of the City of San Jose. The results of the analysis show that all the signalized study intersections are currently operating at acceptable levels of service (LOS D or better) during the AM and PM peak hours of traffic, except for the intersection of Union Avenue and Camden Avenue, which is currently operating at an unacceptable LOS E during the PM peak hour.

Intersection Traffic Operations Under Background and Project Conditions

All the study intersections would operate at an acceptable LOS D or better under Background and Project Conditions except for the intersection of Union Avenue and Camden Avenue. The CMP intersection of Union Avenue and Camden Avenue currently operates at an unacceptable LOS E during the PM peak hour and would continue to do so under background and background plus project conditions. However, since the project would not cause the intersection's critical-movement delay to increase by four or more seconds and the V/C to increase by 0.01 or more compared to background conditions, the project would not have an adverse effect on traffic operations at this intersection.

Intersection Traffic Operations Under Cumulative Conditions

All the study intersections would operate at an acceptable LOS D or better under Cumulative Conditions except for the CMP intersection of Union Avenue and Camden Avenue, which would operate at an unacceptable LOS E during the AM and PM peak hours.

The results of the intersection level of service analysis are shown on Table 6. The detailed intersection level of service calculation sheets for all study scenarios are included in Appendix D.

Table 6
Intersection Level of Service Summary

		Existing		Background		Background + Project				Cumulative	
Signalized Intersection	Peak Hour	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. In Crit. Delay (sec)	Incr. In Crit. V/C	Avg. Delay (sec)	LOS
Union Avenue and Camden Avenue*	AM	50.8	D	51.1	D	53.0	D	3.2	0.031	**55.9**	**E**
	PM	**59.0**	**E**	**62.3**	**E**	**63.6**	**E**	1.7	0.010	**71.8**	**E**
Union Avenue and Woodard Road	AM	16.7	B	16.7	B	15.5	B	-0.9	0.010	14.8	B
	PM	17.5	B	17.4	B	16.1	B	-1.7	-0.009	15.5	B
Union Avenue and Charmeran Avenue	AM	20.8	C	20.9	C	20.3	C	-0.3	0.035	21.1	C
	PM	12.4	B	12.5	B	12.2	B	-0.1	0.013	12.0	B
Union Avenue and Cole Dr	AM	24.8	C	24.8	C	24.7	C	0.6	0.039	24.7	C
	PM	19.2	B	19.1	B	18.7	B	-0.2	0.025	18.6	B
Union Avenue and SR 85 (N)	AM	15.8	B	16.5	B	16.5	B	0.2	0.032	16.9	B
	PM	16.3	B	16.4	B	16.2	B	-0.1	0.015	16.6	B
Union Avenue and SR 85 (S) / Samaritan Drive	AM	21.3	C	21.5	C	22.3	C	-0.4	0.009	22.9	C
	PM	23.0	C	23.1	C	23.5	C	0.2	0.013	23.8	C
SR 85 and Samaritan Drive	AM	21.0	C	22.9	C	24.7	C	2.3	0.038	25.2	C
	PM	9.2	A	8.7	A	8.9	A	0.2	0.010	9.2	A

Notes:
* Denotes CMP intersection
Bold indicates a substandard level of service.

Intersection Queuing Analysis

The operations analysis is based on vehicle queuing for high-demand left-turn movements at intersections (see Tables 7 and 8). The following six left-turn movements were examined as part of the queuing analysis for this project:

- Westbound and northbound left-turn at Camden Avenue and Union Avenue
- Eastbound left-turn at Union Avenue and SR 85 NB Ramps
- Southbound and eastbound left-turn at Union Avenue and SR 85 SB Ramp
- Southbound left-turn at Samaritan Drive and SR 85 SB Ramp

Since the school's peak hour trips would occur over a period of approximately one-half hour, the traffic volumes generated by the project were doubled for these movements in order to reflect queue lengths during the peak 30-minute period within the peak hour. The estimated queue lengths based on the Poisson numerical calculations show queuing deficiencies for two of the six studied left-turn pockets. Locations where the vehicular queues would be deficient are discussed below.

Union Avenue and Camden Avenue

Northbound Left-Turn

The queuing analysis indicates that the 95th percentile vehicle queue for the northbound left-turn pocket at the Union Avenue and Camden Avenue intersection currently exceeds the vehicle storage capacity during the AM and PM peak hours. The northbound left-turn pocket currently provides 225 feet of vehicle storage within one lane, which can accommodate 9 vehicles. The estimated 95th percentile vehicle queues for the northbound left-turn movement are 19 and 14 vehicles during the AM and PM peak hours, respectively, under both existing and background conditions. With the project, the northbound left-turn queue is projected to increase to 25 vehicles during the AM peak hour and 17 vehicles during the PM peak hour.

Lengthening the northbound left-turn pocket at Camden Avenue could be achieved only by shortening the back-to-back (southbound) left-turn pocket at Woodard Road. Therefore, lengthening the northbound left-turn pocket at this intersection is not recommended.

Westbound Left-Turn

The queuing analysis indicates that the maximum vehicle queue for the westbound left-turn pocket at the Union Avenue and Camden Avenue intersection currently exceeds the vehicle storage capacity during the AM and PM peak hours.

The westbound left-turn pocket currently provides 200 feet of vehicle storage within one lane, which can accommodate 8 vehicles. The estimated 95th percentile vehicle queues for the westbound left-turn movement are 19 and 13 vehicles during the AM and PM peak hours, respectively, under existing conditions. Under background conditions, the westbound left-turn pocket is planned to be extended 200 feet (by another approved development), for a total of 400 feet of queue storage capacity, or 16 vehicles. However, the addition of approved traffic would cause the westbound left-turn queues to increase to 22 and 15 vehicles during the AM and PM peak hours, respectively. With the project, the westbound left-turn queues are projected to increase to 24 and 17 vehicles during the AM and PM peak hours, respectively.

Extending the westbound left-turn pocket along Camden Avenue beyond the planned 400 feet would not be possible due to a proposed new signalized driveway along Camden Avenue as part of the Cambrian Park Mixed-Use Village Development. Therefore, the extension of the westbound left-turn pocket at this intersection is not recommended.

Table 7
Queuing Analysis Summary (AM Peak Hour)

	Camden Ave/ Union Ave		Union Ave/ SR 85 NB	Union Ave/ SR 85 SB		Samaritan Dr/ SR 85 SB
Movement:	NBL	WBL	EBL	SBL	EBL	SBL
Peak Hour Period:	AM	AM	AM	AM	AM	AM
Existing						
Cycle/Delay[1] (sec)	180	180	100	100	100	100
Volume (vphpl)	259	262	90	93	281	362
Avg. Queue (veh/ln.)	13	13	2	3	8	10
Avg. Queue (ft./ln)[2]	325	325	62	64	200	250
95th %. Queue (veh/ln.)	19	19	5	5	13	15
95th %. Queue[2] (ft./ln)	475	475	125	125	325	375
Storage (ft./ ln.)	225	200	300	225	650	950
Adequate (Y/N)	**N**	**N**	Y	Y	Y	Y
Background No Project						
Cycle/Delay[1] (sec)	180	180	100	100	100	100
Volume (vphpl)	259	303	90	93	296	362
Avg. Queue (veh/ln.)	13	15	2	3	8	10
Avg. Queue (ft./ln)[2]	325	375	62	64	200	250
95th %. Queue (veh/ln.)	19	22	5	5	13	15
95th %. Queue[2] (ft./ln)	475	550	125	125	325	375
Storage (ft./ ln.)	225	400	300	225	650	950
Adequate (Y/N)	**N**	**N**	Y	Y	Y	Y
Background With the Project						
Cycle/Delay[1] (sec)	180	180	100	100	100	100
Volume (vphpl)	351	345	124	128	413	450
Avg. Queue (veh/ln.)	18	17	3	4	11	13
Avg. Queue (ft./ln)[2]	450	425	86	89	275	325
95th %. Queue (veh/ln.)	25	24	7	7	17	19
95th %. Queue[2] (ft./ln)	625	600	175	175	425	475
Storage (ft./ ln.)	225	400	300	225	650	950
Adequate (Y/N)	**N**	**N**	Y	Y	Y	Y

Notes:
[1] Vehicle queue calculations based on cycle length for signalized intersections and average delay for unsignalized intersections.
[2] Assumes 25 feet per vehicle queued.

Table 8
Queuing Analysis Summary (PM Peak Hour)

	Camden Ave/ Union Ave		Union Ave/ SR 85 NB	Union Ave/ SR 85 SB		Samaritan Dr/ SR 85 SB
Movement:	NBL	WBL	EBL	SBL	EBL	SBL
Peak Hour Period:	PM	PM	PM	PM	PM	PM
Existing						
Cycle/Delay[1] (sec)	180	180	100	100	100	50
Volume (vphpl)	181	167	122	113	400	250
Avg. Queue (veh/ln.)	9	8	3	3	11	3
Avg. Queue (ft./ln)[2]	225	200	84	78	275	75
95th %. Queue (veh/ln.)	14	13	7	6	17	6
95th %. Queue[2] (ft./ln)	350	325	175	150	425	150
Storage (ft./ ln.)	225	200	300	225	650	950
Adequate (Y/N)	**N**	**N**	Y	Y	Y	Y
Background						
Cycle/Delay[1] (sec)	180	180	100	100	100	50
Volume (vphpl)	181	192	122	113	481	250
Avg. Queue (veh/ln.)	9	10	3	3	13	3
Avg. Queue (ft./ln)[2]	225	250	84	78	325	75
95th %. Queue (veh/ln.)	14	15	7	6	19	6
95th %. Queue[2] (ft./ln)	350	375	175	150	475	150
Storage (ft./ ln.)	225	400	300	225	650	950
Adequate (Y/N)	**N**	Y	Y	Y	Y	Y
Background With the Project						
Cycle/Delay[1] (sec)	180	180	100	100	100	50
Volume (vphpl)	223	216	136	132	519	272
Avg. Queue (veh/ln.)	11	11	4	4	14	4
Avg. Queue (ft./ln)[2]	275	275	94	92	350	100
95th %. Queue (veh/ln.)	17	17	7	7	20	8
95th %. Queue[2] (ft./ln)	425	425	175	175	500	200
Storage (ft./ ln.)	225	400	300	225	650	950
Adequate (Y/N)	**N**	**N**	Y	Y	Y	Y

Notes:
[1] Vehicle queue calculations based on cycle length for signalized intersections and average delay for unsignalized intersections.
[2] Assumes 25 feet per vehicle queued.

Freeway On-Ramp Meter Analysis

An analysis of metered freeway on-ramps providing access to SR 85 from the project site was performed to identify the effects of project traffic on the vehicle queues and wait times at the metered on-ramps. It should be noted that the evaluation of metered freeway on-ramps is not required based on the City's transportation analysis guidelines. The evaluation of the metered freeway on-ramps that would be utilized by project-generated traffic is provided for informational purposes.

The metered freeway on-ramps were evaluated during the AM and PM peak hours of traffic. Note that since the school's peak hour trips would occur over a period of approximately one-half hour, the number of project-generated trips added to each metered on-ramp was doubled in order to reflect queue lengths during the peak 30-minute period within the peak hour. Ramp meters were observed to be operating during the peak period in the direction of the commute traffic only. Uncontrolled freeway on-ramps are typically not evaluated since these ramps do not experience measurable queue lengths. The study freeway on-ramps and the peak traffic period when their meters are operating are as follows:

- SR 85 northbound diagonal on-ramp from Union Avenue – AM peak-hour
- SR 85 southbound diagonal on-ramp from Union Avenue – PM peak-hour

A quantitative assessment of project traffic estimated to use the metered freeway ramps is discussed below and summarized in Table 9. The existing vehicle queue lengths and meter service rates (the number of vehicles that can go through the meter during a specific time period, or the time the vehicle at the front of the queue must wait for the ramp meter to turn green) at each of the above metered ramps were measured in the field during the peak hours of traffic. Wait times at the metered ramps (the time it took a vehicle at the end of the queue to proceed through the meter) also were measured in the field and were verified with the collected queue and meter rate data. A ratio between the existing volumes on the freeway on-ramp and the approved and project trips projected to use the on-ramp was used to estimate the number of vehicles that would be added to the existing queue under background and background plus project conditions.

85 Northbound On-Ramp from Union Avenue

The longest vehicle queue that was observed at the SR 85 northbound on-ramp from Union Avenue was 58 vehicles in length within the two mixed-flow lanes (or about 29 vehicles per lane) during the AM peak-hour. The maximum vehicle queue that was observed nearly extended along the entire length of the on-ramp; however, it was never observed to extend beyond the on-ramp and onto Union Avenue. With the addition of traffic generated by approved development projects in the area, the queue length for this on-ramp is projected to increase by one vehicle to a maximum of 59 vehicles, and the back-of-queue wait time is projected to increase by 6 seconds during the AM peak-hour under background conditions at the ramp meter.

The proposed project is projected to add 55 vehicles to this metered on-ramp during the AM peak-hour. This number of project trips was doubled, since the school's peak hour trips would occur over a period of approximately one-half hour within the peak hour. This equates to approximately 2 vehicle trips added to the on-ramp every minute. The proposed project is estimated to increase the maximum vehicular queue length at this on-ramp by approximately 10 vehicles compared to background conditions during the AM peak-hour, resulting in approximately a 60-second increase in the back-of-queue wait times at the ramp meter. The addition of project traffic to the SR 85 northbound on-ramp from Union Avenue equates to approximately a 15 percent increase in traffic volume on the ramp during the AM peak-hour, compared to background conditions. Since the existing maximum queue length at this on-ramp was observed to extend nearly the entire length of the ramp, the addition of approved and proposed project traffic potentially would result in an AM peak hour 95th percentile queue that spills back onto Union Avenue. The additional queued vehicles due to the project could likely be accommodated within the exclusive southbound right-turn lane on Union Avenue at the northbound on-ramp intersection, which has storage capacity for 8 or 9 vehicles. Therefore, the addition of project traffic to this metered on-ramp would likely not result in the blocking of southbound through traffic on Union Avenue.

Table 9
Freeway Ramp Operations Analysis

Freeway Ramp	Peak Hour	# of Lanes MF	Meter Status	Existing[1] Volume	Existing[1] Queue (total veh.)[5]	Existing[1] Meter Rate (veh/s)[5]	Existing[1] Wait Time[3] (min:sec)	Background[2] Approved Trips	Background[2] Volume	Background[2] Queue (total veh.)[5]	Background[2] Wait Time[3] (min:sec)
SR 85 NB Diagonal On-Ramp from Union Avenue	AM	2	On	708	58	6.0	05:48.0	3	711	59	05:54.0
	PM		Off	766	--	--	--	16	782	--	--
SR 85 SB Diagonal On-Ramp from Union Avenue	AM	2	Off	467	--	--	--	20	487	--	--
	PM		On	477	44	8.0	05:52.0	108	585	54	07:12.0

Notes:

[1] Existing queue length represents the total vehicles in the queue observed during the peak-hour period. Existing meter rate and wait times were measured at the ramps on January 30, 2018

[2] Background and background plus project conditions queue lengths were estimated based on the ratio between the existing volumes on the ramp and the estimated approved and project trips added to the ramp, respectively.

[3] Future wait times were estimated based on the queue length and the measured meter service rates.

[4] Percent increase was calculated from background to background plus project conditions for total volumes on ramp.

[5] Reported queue length and meter rate are for the mixed-flow lane. Meter rates within HOV lanes were observed to be faster and serve lower traffic volumes, resulting in shorter queue lengths.

Table 9 (Continued)
Freeway Ramp Operations Analysis

Freeway Ramp	Peak Hour	# of Lanes MF	Meter Status	Background Plus Project[2] Project Trips[6]	Volume	% Increase[4]	Queue (total veh.)[5]	Wait Time[3] (min:sec)
SR 85 NB Diagonal On-Ramp from Union Avenue	AM	2	On	110	821	15.47%	69	06:54.0
	PM		Off	92	874	11.76%	--	--
SR 85 SB Diagonal On-Ramp from Union Avenue	AM	2	Off	70	557	14.37%	--	--
	PM		On	36	621	6.15%	58	07:44.0

Notes:

[1] Existing queue length represents the total vehicles in the queue observed during the peak-hour period. Existing meter rate and wait times were measured at the ramps on January 30, 2018

[2] Background and background plus project conditions queue lengths were estimated based on the ratio between the existing volumes on the ramp and the estimated approved and project trips added to the ramp, respectively.

[3] Future wait times were estimated based on the queue length and the measured meter service rates.

[4] Percent increase was calculated from background to background plus project conditions for total volumes on ramp.

[5] Reported queue length and meter rate are for the mixed-flow lane. Meter rates within HOV lanes were observed to be faster and serve lower traffic volumes, resulting in shorter queue lengths.

[6] The number of project trips added to each metered on-ramp was doubled, since the school's peak hour trips would occur over a period of approximately one-half hour within the peak hour.

SR 85 Southbound On-Ramp from Union Avenue

The longest vehicle queue that was observed at the SR 85 southbound on-ramp from Union Avenue was 44 vehicles in length within both mixed-flow lanes (or about 22 vehicles per lane) during the PM peak-hour. The maximum vehicle queue observed nearly extended along the entire length of the on-ramp; however, it was never observed to extend beyond the on-ramp storage and onto Union Avenue. With the addition of traffic generated by the approved Samaritan Medical Office Expansion project, the queue length for this on-ramp is projected to increase by ten vehicles to a maximum of 54 vehicles, and the back-of-queue wait time is projected to increase by more than one minute during the AM peak-hour. The additional 10 vehicles added to the maximum on-ramp queue under background conditions would result in inadequate storage capacity being provided on the on-ramp, and the maximum queue length spilling back onto Union Avenue during the PM peak-hour.

The proposed project is projected to add 18 vehicles to this metered on-ramp during the PM peak-hour. This number of project trips was doubled, since the school's peak hour trips would occur over a period of approximately one-half hour within the peak hour. This equates to approximately 1 vehicle trip added to the on-ramp every 2 minutes. The proposed project is estimated to increase the maximum vehicular queue length at this on-ramp by 4 vehicles compared to background conditions during the PM peak-hour, resulting in approximately a 30-second increase in the back-of-queue wait times at the ramp meter. The addition of project traffic to the SR 85 southbound on-ramp from Union Avenue equates to approximately a 6 percent increase in traffic volume on the ramp during the PM peak-hour, compared to background conditions. Since the existing maximum queue length at this on-ramp was observed to extend nearly the entire length of the ramp, the addition of approved and proposed project traffic would likely result in a PM peak hour 95th percentile queue that spills back onto Union Avenue. The additional queued vehicles due to the project could be accommodated within the two exclusive southbound left-turn lanes on Union Avenue at the southbound on-ramp intersection, which has a combined storage capacity of 18 vehicles. Therefore, the addition of project traffic to this metered on-ramp would likely not result in the blocking of southbound through traffic on Union Avenue.

Site Access and On-Site Circulation

The site access and circulation evaluations are based on the September 27, 2018 site plan prepared by Devcon (see Figure 2). Site access was evaluated to determine the adequacy of the site's driveway with regard to the following: traffic volume, delays, vehicle queues, geometric design, and corner 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 two driveways along Union Avenue. The existing northern driveway on Union Avenue would be relocated approximately 150 feet to the south in order to increase its distance from Barrett Avenue. This new driveway location would be centrally located along the project frontage and would be signalized to facilitate left turns in and out of the site. The location of the new traffic signal would ensure that adequate vehicle storage space is provided on Union Avenue for the northbound left-turn movement onto Barrett Avenue north of the site, thereby eliminating the potential for vehicle conflicts between the new signal and Barrett Avenue. It is assumed that the new signal design would include a raised median island on Union Avenue. Thus, the southern driveway would be restricted to inbound and outbound right-turn movements only. The north project driveway measures 32 feet wide (to provide for adequate bus/shuttle access) and the south project driveway measures 26 feet wide, which satisfies the City's requirement for a two-way driveway. Both driveways connect to the surface parking lot in the front of the school.

Evaluation of Proposed Signalized Project Driveway

The project is proposing to relocate the northern driveway to be centrally located along the project frontage and install a traffic signal to facilitate protected left turns in and out of the site. Without protected left turns, AM and PM peak hour traffic operations at the project site would be poor. Without a signal, vehicles turning left from the site would be forced to wait for sufficient gaps in traffic before crossing multiple lanes of traffic along Union Avenue, resulting in long vehicle delays and excessive queuing on site. Vehicles turning left into the site from northbound Union Avenue would also conflict with vehicles turning left out of the site, making the outbound left-turn movement infeasible during the peak morning drop-off and afternoon pick-up periods. As a result, outbound vehicle movements would need to be restricted to right turns only, which would create other problems. Vehicles that otherwise would have turned left out of the site and onto northbound Union Avenue would now have to find alternative routes to the north, which likely would result in neighborhood cut-through traffic via Cole Drive, additional trips onto northbound SR 85, and some vehicles utilizing westbound Samaritan Drive. The proposed traffic signal would eliminate the need to cut through the neighborhood to the east, significantly reduce the project's effect on the southbound left-turn/U-turn movement at the Union Avenue/Cole Drive intersection and reduce the number of project-generated trips entering SR 85 and using Samaritan Drive to access Bascom Avenue and travel north.

Signal Warrant

Traffic volume projections at the proposed new signalized driveway were checked to determine whether installation of a traffic signal would be justified on the basis of peak-hour traffic volumes. With the addition of project trips, the AM peak hour traffic volumes at the intersection of Union Avenue and the relocated northern project driveway would exceed the levels that meet the signal warrant. Installation of a traffic signal at this intersection would be crucial to providing adequate access to and from the project site. The signal warrant sheets are included in Appendix E.

Sight Distance at the Project Driveways

The project access points 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 other vehicles traveling on adjacent roadways. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site.

Adequate sight distance (sight distance triangles) should be provided at the project driveway in accordance with Caltrans standards. Sight distance triangles should be measured approximately 10 feet back from the traveled way. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway or intersection and provides drivers with the ability to exit a driveway and locate sufficient gaps in traffic. The minimum acceptable sight distance is often considered the Caltrans stopping sight distance. Sight distance requirements vary depending on the roadway speeds. For the unsignalized southern project driveway on Union Avenue, which has a posted speed limit of 35 mph, the Caltrans stopping sight distance is 300 feet (based on a design speed of 40 mph). Thus, a driver exiting the southern driveway must be able to see 300 feet to the north along Union Avenue in order to stop and avoid a collision. Based on the project site plan and observations in the field, vehicles exiting the southern driveway would be able to see approaching traffic on southbound Union Avenue, and the proposed traffic signal at the relocated northern project driveway would provide gaps in traffic to allow vehicles to turn onto southbound Union Avenue. Therefore, it can be concluded that the project driveways would meet the Caltrans minimum stopping sight distance standards.

Project Driveway Operations

The project-generated trips that are estimated to occur at the relocated northern project driveway are 353 inbound trips and 150 outbound trips during the AM peak hour, and 132 inbound trips and 183

outbound trips during the PM peak hour. Project trips that are estimated to occur at the southern driveway are 176 trips outbound during the AM peak hour and 127 trips outbound during the PM peak hour. The centrally relocated project driveway would be signalized with the proposed project and was analyzed with one left-turn lane and two through lanes for the northbound approach, one through lane and one shared through-right lane for the southbound approach, and a shared left-right lane for the eastbound approach (project driveway). The intersection was analyzed with a 90-second cycle length and protected left-turn phasing for the northbound approach. The northern project driveway would operate at an acceptable LOS B with 14.6 seconds of delay during the AM peak hour, and an acceptable LOS A with 6.9 seconds of delay during the PM peak hour. The unsignalized southern driveway would operate at an acceptable LOS A with 1.2 seconds of average vehicle delay for the entire intersection and 14.2 seconds of delay (LOS B) for the eastbound right-turn movement (outbound vehicles) during the AM peak hour, and would operate at an acceptable LOS A with 1.6 seconds of average intersection delay and 26.8 seconds of delay (LOS D) for the eastbound/outbound movement during the PM peak hour.

A queuing analysis for the project inbound movements at the relocated northern project driveway indicates a 95th percentile queue length of 450 feet (a queue of 18 cars) for the northbound left-turn lane and a queue length of 225 feet (a queue of 9 cars) for the southbound shared through/right-turn lane during the AM school peak. Since the school's peak hour trips would occur over a period of approximately one-half hour, the traffic volumes for these movements were doubled in order to reflect queue lengths during the peak 30-minute period within the peak hour. The analysis assumed that the northbound left-turn movement would be served twice, once at the beginning of the cycle and once at the end of the cycle, in order to reduce the effects of queuing onto Union Avenue. The analysis also assumes that the southbound right-turning vehicles would enter the signalized project driveway during the green phase for the southbound through movement on Union Avenue and during the green phase for the outbound/eastbound movement. The proposed northbound left-turn pocket measures approximately 160 feet long. A queue length of 450 feet for the northbound left-turn lane would extend into the adjacent through lane on Union Avenue and potentially extend into the upstream intersection of Cole Drive during the school peak 30 minutes in the morning. Since the new traffic signal would be located approximately 245 feet south of Barrett Avenue, and the southbound right-turn movement into the project driveway would occur from the outer through lane (curb lane) on Union Avenue, a queue length of 225 feet for the southbound right-turn movement would not extend to Barrett Avenue during the school peak 30 minutes in the morning.

Implementation of a trip cap of 565 total AM peak hour trips at the project driveways would reduce the queue length for the northbound left-turn lane from 450 feet to 375 feet. Although this queue length would extend beyond the left-turn pocket and extend into the adjacent northbound through lane on Union Avenue, it would not likely extend beyond Cole Drive.

On-Site Circulation and Parking Layout

On-site vehicular circulation was reviewed in accordance with the City of San Jose Zoning Code and generally accepted traffic engineering standards. In general, the proposed site plan would provide vehicle traffic with adequate connectivity through the parking areas. The project would provide 90-degree parking stalls throughout the surface parking lot. The City's standard minimum width for two-way drive aisles is 26 feet wide where 90-degree parking is provided. This allows sufficient room for vehicles to back out of the parking spaces. According to the site plan, the two-way drive aisles with parking available on either side measure 26 feet wide throughout the parking areas and adheres to the City's minimum width for two-way drive aisles.

Parking Stall Dimensions

The City's requirement for standard parking stalls is 8.5 feet wide by 18 feet long. All parking spaces are shown to measure 8.5 feet wide by 16 feet long with a 2-foot overhang into either a landscaped strip or a concrete walkway. Therefore, the parking space dimensions would be adequate and would not have vehicles extending into the parking aisle.

Bike and Pedestrian Facilities and On-Site Circulation

The site plan shows that pedestrian circulation throughout the site, as well as between the site and the surrounding pedestrian facilities (sidewalks and nearby crosswalks), would generally be adequate.

The site plan does not show any bicycle parking. Bicycle parking should be provided in a designated area on site that would allow bicyclists to enter/leave the project site using the northern project driveway and connect to the bike lanes on Union Avenue. Providing convenient bike parking would help create a pedestrian- and bicycle-friendly environment and encourage bicycling by employees and students of the school.

School Drop-off and Pick-Up Operations

The site plan shows that drop-off/pick up operations would occur on the south side of the site at the back of the school, adjacent to the basketball courts. Vehicles would enter the site from the northern driveway and circulate through the school parking lot in a counter clockwise direction to access the drop-off/pick-up area. A turn-around would be provided at the end of the drop-off/pick-up aisle for vehicles to turn around and exit the school via the northern driveway for destinations to the north or via the southern driveway for destinations to the south. The site plan shows that the drop-off/pick-up aisle would measure approximately 580 feet long and would accommodate approximately 29 cars inbound and 29 cars outbound (assuming a car length of 20 feet). Additional queueing space for approximately 11 vehicles inbound and 11 vehicles outbound would be facilitated by the two parking aisles located to the south of the proposed signalized project driveway. In order to facilitate on-site student pick-up/drop-off operations by shuttle buses and guarantee efficient circulation of these shuttles within the parking aisles, it is recommended that the project implement on-site circulation patterns as shown on Figure 18 during the peak pick-up and drop-off time periods at the school. It is recommended that school staff members or parent volunteers be stationed at the drop-off/pick-up area during school peak hours to ensure student safety and to direct vehicles to pull as far forward as possible to make effective use of the drive aisle queuing space.

Based on drop-off and pick-up operations observed at other private middle schools in San Jose, a maximum rate of 0.123 vehicles per student (or about 2.5 feet per student) was observed during the school drop-off/pick-up periods. Based on the observed maximum vehicle-to-student ratio, and assuming all grade levels would start and end school at the same time, it is estimated that Harker Middle School would generate a maximum vehicle queue of 55 vehicles in length (or 1,100 feet) during the peak school drop-off/pick-up periods (after the 25% shuttle reduction is applied). A maximum on-site vehicle queue of more than about 40 vehicles inbound and 40 vehicles outbound would spill out onto Union Avenue. It should be emphasized that the student loading queue lengths are based on operations at other private middle schools that do not have staggered schedules for different grade levels. Staggering the start and end times at the proposed new Harker middle school would significantly reduce the vehicle queues that would develop during student loading operations. It is expected that the staggered school schedule would reduce the vehicle queueing within the on-site student loading area by up to 50 percent. This equates to a maximum of 28 vehicles queueing on site, or a maximum vehicle queue of approximately 560 feet. Therefore, implementing the staggered school schedule would eliminate the potential for overflow of vehicles onto Union Avenue during the school peak student pick-up and drop-off periods of the day.

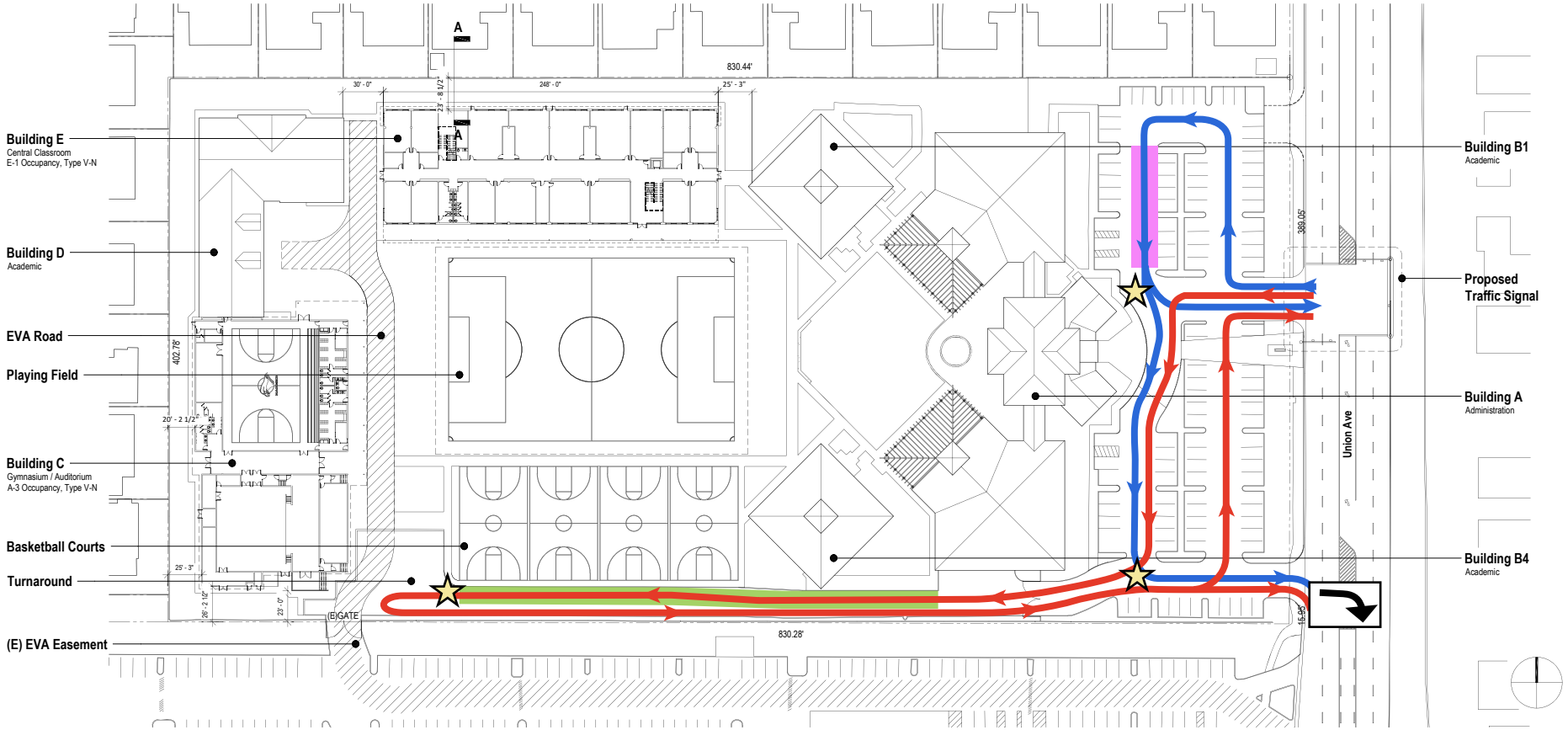


Figure 18
On-Site Circulation Patterns

NORTH
Not to Scale

Alternatively, the proposed middle school could implement additional shuttle service so that up to half of the students use the school shuttle buses. In order to prevent the vehicular queues generated during the school peak drop-off and pick-up periods from extending onto Union Avenue, it is estimated that 46% of the student population would have to use the school shuttle service. This could be achieved by identifying remote drop-off/pick-up areas, such as Park-and-Ride lots, whereby students are transported to the school by shuttle buses.

Student loading after school has the potential of being a hectic and inefficient process since it takes time for parents and students to locate each other. Some parents may choose to arrive early in an effort to avoid after school traffic conditions. Hexagon recommends the school implement the following additional measures to further improve student pick-up operations after school:

- The school should notify all students and parents not to arrive too early for pick-up if arriving before afternoon dismissal.
- Staff and/or parent volunteers could facilitate the loading process to shorten the time parents wait for students to notice them in the loading zone. A staff member could be positioned in advance of the loading zone and radio ahead to other staff positioned within the loading zone to announce the names of students who should be ready for pick up. A numbering system could be used to accomplish this. The number is displayed on the dash of the vehicle and is associated with a particular student.

Truck Access and Circulation

The project site plan was reviewed for truck access using truck turning-movement templates for a SU-30 truck type, 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 SU-30 trucks to access the project site via the project driveways and maneuver through the parking aisles.

Shuttle Buses

The shuttle buses would enter from the northern driveway and circulate through the parking aisles in a counterclockwise direction. Shuttle buses would utilize the west (southbound) drive aisle to drop-off and pick-up students in front of the administrative building. The shuttle buses would then turn onto the central drive aisle and exit the school via the northern driveway for destinations to the north or via the southern driveway for destinations to the south.

Garbage Collection

Garbage collection activities for the project are expected to occur on site. The site plan shows the trash room to be located on the south side of the school adjacent to the drop-off/pick-up lane and near the west parking aisle. After garbage pick-up, garbage trucks could back into the west parking aisle or travel the length of the pick-up/drop off lane to turn around and exit via either of the two project driveways. Garbage collection should occur outside of the school's peak hours of operation as to not impact school peak-hour on-site vehicular circulation.

Emergency Vehicle Access

Emergency vehicles access (EVA) would be provided via the project driveways on Union Avenue. The City of San Jose Fire Code requires driveways to provide 32 feet of width for fire access. The north project driveway measures 32 feet wide and the south project driveway measures 26 feet wide. Thus, 6 feet of red curb should be added to the south project driveway to provide the 32 feet of clearance required to comply with the City's fire code. The site plan also shows an EVA easement along the adjacent property to the south.

Parking Supply

The City of San Jose Zoning Code (Section 20.90.060) states that schools (K-8) are required to provide parking as follows: 1 parking space per teacher plus 1 parking space per other employee. Based on information provided by the applicant, there will be a total of 100 employees during school hours. Therefore, the project should provide 100 parking spaces on site. The site plan shows a total of 110 on-site parking spaces, which exceeds the City's parking requirement.

Per the 2016 California Building Code (CBC) Table 11B-208.2, five ADA accessible spaces are required for projects with 101 to 150 parking spaces. Of the required accessible parking spaces, one van accessible space is required. The plans show a total of five accessible spaces, all located in the surface parking lot in front of the administrative building and meets the CBC.

Bicycle Parking

According to the City's Bicycle Parking Standards (Chapter 20.90, Table 20-210) for elementary and middle schools (grades K through 8), the project is required to provide bicycle parking at a rate of 1 space per 10 employees and 6 spaces per classroom. It is our understanding that the project is proposing to provide 42 classrooms. Based on 100 school employees and 42 classrooms, the project is required to provide a total of 262 bicycle parking spaces. The site plan does not show any bicycle parking. Note that based on the zip code data for current enrollment of the middle school students at the Blackford campus, the majority of students would commute via passenger cars or use alternative modes such as carpool or shuttle bus. Therefore, the project would likely require fewer than 262 bicycle parking spaces. The project should work with the City to determine a reasonable number of bicycle parking spaces that should be provided on site.

Motorcycle Parking

According to the City's Motorcycle Parking Standards (Chapter 20.90, Table 20-250), the project is not required to provide any motorcycle parking for school use.

Potential Vehicular Neighborhood Intrusion

As previously described, the project would install a traffic signal at the northern driveway to facilitate left-turns into and out of the site. Since the traffic signal on Union Avenue would provide direct access to the school for traffic coming from SR 85 and Camden Avenue, neighborhood streets such as Barrett Avenue, Woodard Road and Cole Drive are less likely to experience any cut-through traffic.

The school's administration could create a working group with the neighborhood to assess neighborhood intrusion on an on-going basis and develop and implement traffic calming measures if needed in the future.

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.

Pedestrian volumes along Union Avenue are relatively low. Therefore, any necessary sidewalk closures/pedestrian detours would have very little effect on the overall pedestrian circulation in the area. Similarly, bicycle volumes along Union Avenue are relatively low; therefore, effects on bicycle facilities during construction are expected to minimal.

Pedestrian, Bicycle, and Transit Analysis

All new development projects in San Jose should encourage multi-modal travel, consistent with the goals of the City's General Plan. It is the goal of the General Plan that all development projects accommodate and encourage the use of non-automobile transportation modes to achieve San Jose's mobility goals and reduce vehicle trip generation and vehicle miles traveled. In addition, the adopted City Bike Master Plan establishes goals, policies and actions to make bicycling a daily part of life in San Jose. The Master Plan includes designated bike lanes along all City streets, as well as on designated bike corridors. In order to further the goals of the City, pedestrian and bicycle facilities should be encouraged with new development projects.

Pedestrian Facilities

Pedestrian facilities in the study area consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections (see Chapter 2 for details). Overall, the network of sidewalks and crosswalks in the study area has adequate connectivity and provides pedestrians with safe routes to transit services and other points of interest in the vicinity of the project site.

Bicycle Facilities

Class II striped bike lanes are provided along various roadways in the vicinity of the project site, including along the project site frontage on Union Avenue.

The Envision 2040 General Plan identifies goals and policies that are dedicated to the enhancement of the transportation infrastructure, including public transit and pedestrian/bike facilities. The Transportation Policies contained in the General Plan create incentives for non-auto modes of travel while reducing the use of single-occupant automobile travel as generally described below:

- Through the entitlement process for new development, fund needed transportation improvements for all transportation modes, giving first consideration to improvement of bicycling walking, and transit facilities.
- Give priority to the funding of multimodal projects to provide the most benefit to all users of the transportation system.
- Encourage the use of non-automobile travel modes to reduce vehicle miles traveled (VMT)
- Consider the impact on the overall transportation system when evaluating the impacts of new developments.
- Increase substantially the proportion of travel modes other than single-occupant vehicles.

The planned improvements discussed below are intended to reduce the identified project impacts to the roadway system by providing the project site with viable connections to surrounding pedestrian/bike and transit facilities and provide for a balanced transportation system as outlined in the Envision 2040 General Plan goals and policies. However, the full implementation of the improvements are beyond the means of the proposed project given that they may require right-of-way from adjacent properties. The project could make a fair-share contribution towards the cost of the improvements since the identified improvements would be of benefit to the project.

Bicycle and Pedestrian Facility Improvements

The Envision 2040 General Plan identifies the following goals regarding bicycling and pedestrians:

- Provide a continuous pedestrian and bicycle system to enhance connectivity throughout the City by completing missing segments.
- Build pedestrian and bicycle improvements at the same time as other improvements for vehicular circulation.
- Give priority to pedestrian improvement projects that improve pedestrian safety and that improve pedestrian access to and within the Urban Villages and other growth areas.

The San Jose Bike Plan 2020 indicates that a variety of bicycle facilities are planned in the study area, some of which would benefit the project and adhere to the goals of the Envision 2040 General Plan. Of the planned facilities, the following are relevant to the project.

Class II Bike lanes are planned for:

- Camden Avenue, between SR 17 and Hillsdale Avenue

Transit Services

The project site is adequately-served by transit. Existing transit services near the project site are provided by the VTA. The nearest bus stop is located adjacent to the project site on Union Avenue, while additional bus stops to other bus routes are located at the Union Avenue/Camden Avenue intersection, approximately a half-mile north of the project site (see Chapter 2 for details). The new transit trips generated by the project are not expected to create demand in excess of the transit service that is currently provided.

An evaluation of the effects of project traffic on transit vehicle delay was completed. The analysis was completed for all transit routes that travel through the study intersections, utilizing information produced by the intersection level of service analysis. The analysis shows that during the AM peak hour, the project would increase the delay for Route 62 southbound by a little more than 20 seconds (see Table 10). This delay is attributable to the new traffic signal that is proposed at the project driveway on Union Avenue. For all other routes, the analysis shows that the project would result in only minor increases in delay of some transit vehicles and result in decreases in delay for other transit vehicles. The decreases in delay are attributed to the fact that the addition of project traffic sometimes causes a reallocation of green time, which results in less delay for certain movements and more delay for others. The VTA has not established policies or significance criteria related to transit vehicle delay. Thus, this data is presented for informational purposes only.

Table 10
Transit Delay Analysis

Route	Direction	Peak Hour	Existing Travel Time[1] (sec)	Increase in Delay[2] (sec)	Increase in Transit Delay (%)
27	Eastbound	AM	480	-0.9	-0.2%
		PM	540	0.6	0.1%
	Westbound	AM	420	2.9	0.7%
		PM	360	0.2	0.1%
37	Eastbound	AM	480	2.2	0.5%
		PM	840	1.2	0.1%
	Westbound	AM	540	3.2	0.6%
		PM	420	-0.1	0.0%
62	Northbound	AM	540	-2.4	-0.4%
		PM	600	0.6	0.1%
	Southbound	AM	600	20.4	3.4%
		PM	600	5.0	0.8%
101	Northbound	AM	720	2.2	0.3%
		PM	N/A	-	-
	Southbound	AM	N/A	-	-
		PM	1,080	-0.1	0.0%
328	Northbound	AM	720	2.2	0.3%
		PM	N/A	-	-
	Southbound	AM	N/A	-	-
		PM	540	-0.1	0.0%
330	Northbound	AM	720	2.2	0.3%
		PM	N/A	-	-
	Southbound	AM	N/A	-	-
		PM	600	-0.1	0.0%

Note:
1. Travel time is based on the VTA's bus schedule for two timepoints closest to each end of the study area.
2. Increase in transit delay/travel time from background conditions to background+project conditions. The transit delay is calculated by adding together the delay of all relevant movements at the study intersections.
3. N/A: Route not in operation

5. CMP Freeway Segment Analysis

Since the project is expected to add more than 100 net new peak-hour vehicle trips to the roadway network, a Congestion Management Program (CMP) freeway analysis was prepared to be consistent with the methodologies set forth in the VTA's *Transportation Impact Analysis Guidelines* (2014). This chapter describes the existing and future operations of the freeway segments in the study area. The freeway segment analysis was prepared for informational purposes.

The following freeway segments were evaluated for level of service:

1. SR 85, between South De Anza Boulevard and Saratoga Avenue
2. SR 85, between Saratoga Avenue and Winchester Boulevard
3. SR 85, between Winchester Boulevard and SR 17
4. SR 85, between SR 17 and Bascom Avenue
5. SR 85, between Bascom Avenue and Union Avenue
6. SR 85, between Union Avenue and Camden Avenue
7. SR 85, between Camden Avenue and Almaden Expressway

Existing Freeway Segment Levels of Service

Traffic volumes for the 7 study freeway segments were obtained from the 2016 CMP Annual Monitoring Report, which contains the most recent data collected for freeway segments located in Santa Clara County. The results of the evaluation (see Table 11) show that mixed-flow lanes on 11 directional study freeway segments currently operate at an unacceptable LOS F during at least one of the peak hours of traffic. The results also show that 8 directional HOV lane segments analyzed currently operate at an unacceptable LOS F during at least one of the peak hours. As described in Chapter 1, the CMP defines an acceptable level of service for freeway segments as LOS E or better.

Freeway Segment Levels of Service Under Project Conditions

The results of the freeway segment level of service analysis show that the project would not cause substantial increases in traffic volumes (one percent or more of freeway capacity) on any of the study freeway segments currently operating at an unacceptable LOS F, and none of the study freeway segments currently operating at an acceptable LOS E or better would worsen to LOS F as a result of the project (see Table 12).

Table 11
Existing Freeway Segment Levels of Service

#	Freeway	Segment	Direction	Peak Hour	Mixed-Flow Lane Avg. Speed[1]	# of Lanes[1]	Volume[1]	Density[1]	LOS[1]	HOV Lane Avg. Speed[1]	# of Lanes[1]	Volume[1]	Density[1]	LOS[1]
1	SR 85	from Almaden Expressway to Camden Avenue	NB	AM	12	2	2,570	**107**	**F**	14	1	1,400	**100**	**F**
			NB	PM	66	2	3,670	28	D	70	1	840	12	B
2	SR 85	from Camden Avenue to Union Avenue	NB	AM	12	2	2,570	**107**	**F**	21	1	1,710	**81**	**F**
			NB	PM	64	2	4,100	32	D	70	1	910	13	B
3	SR 85	from Union Avenue to South Bascom Avenue	NB	AM	17	2	3,100	**91**	**F**	14	1	1,400	**100**	**F**
			NB	PM	66	2	3,170	24	C	70	1	980	14	B
4	SR 85	from South Bascom Avenue to SR 17	NB	AM	10	2	2,280	**114**	**F**	10	1	1,160	**116**	**F**
			NB	PM	67	2	2,130	16	B	70	1	1,540	22	C
5	SR 85	from SR 17 to Winchester Boulevard	NB	AM	10	2	2,340	**117**	**F**	9	1	1,100	**122**	**F**
			NB	PM	67	2	2,000	15	B	70	1	560	8	A
6	SR 85	from Winchester Boulevard to Saratoga Avenue	NB	AM	21	2	3,410	**81**	**F**	29	1	1,890	**65**	**F**
			NB	PM	65	2	4,030	31	D	70	1	700	10	A
7	SR 85	from Saratoga Avenue to Saratoga-Sunnyvale	NB	AM	30	2	3,840	**64**	**F**	42	1	2,100	50	E
			NB	PM	66	2	2,780	21	C	70	1	630	9	A
8	SR 85	from Saratoga-Sunnyvale Road to Saratoga	SB	AM	67	2	2,400	18	B	67	1	540	8	A
			SB	PM	25	2	3,650	**73**	**F**	40	1	2,160	54	E
9	SR 85	from Saratoga Avenue to Winchester Boulevard	SB	AM	66	2	3,170	24	C	67	1	470	7	A
			SB	PM	35	2	4,060	58	E	60	1	2,340	39	D
10	SR 85	from Winchester Boulevard to SR 17	SB	AM	67	2	1,600	12	B	67	1	670	10	A
			SB	PM	16	2	3,010	**94**	**F**	50	1	2,300	46	D
11	SR 85	from SR 17 to South Bascom Avenue	SB	AM	67	2	2,400	18	B	67	1	740	11	A
			SB	PM	9	2	2,200	**122**	**F**	20	1	1,760	**88**	**F**
12	SR 85	from South Bascom Avenue to Union Avenue	SB	AM	66	2	2,910	22	C	67	1	470	7	A
			SB	PM	14	2	2,780	**99**	**F**	30	1	1,950	**65**	**F**
13	SR 85	from Union Avenue to Camden Avenue	SB	AM	64	2	4,230	33	D	67	1	340	5	A
			SB	PM	36	2	4,040	56	E	60	1	2,460	41	D
14	SR 85	from Camden Avenue to Almaden Expressway	SB	AM	66	2	2,780	21	C	67	1	410	6	A
			SB	PM	55	2	4,400	40	D	70	1	2,240	32	D

Notes:
[1] Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2016.
Bold indicates a substandard level of service.

Table 12
Project Conditions Freeway Segment Levels of Service

					Existing Plus Project														Project Trips				
					Mixed-Flow Lane							HOV Lane								Mixed-Flow Lane			HOV Lane	
#	Freeway	Segment	Direction	Peak Hour	Avg. Speed[1]	# of Lanes[1]	Capacity (vph)	Ex. Volume/a/	Volume	Density	LOS	Avg. Speed[1]	# of Lanes[1]	Capacity (vph)	Ex. Volume/a/	Volume	Density	LOS	Total Volume	Volume	% of Capacity	Volume	% of Capacity
1	SR 85	from Almaden Expressway to Camden Avenue	NB	AM	12	2	4,400	2,570	2,594	**108**	**F**	14	1	1,650	1,400	1,410	**101**	**F**	34	24	0.56	10	0.58
			NB	PM	66	2	4,400	3,670	3,680	28	D	70	1	1,650	840	844	12	B	14	10	0.23	4	0.24
2	SR 85	from Camden Avenue to Union Avenue	NB	AM	12	2	4,400	2,570	2,594	**108**	**F**	21	1	1,650	1,710	1,720	**82**	**F**	34	24	0.56	10	0.58
			NB	PM	64	2	4,400	4,100	4,110	32	D	70	1	1,650	910	914	13	B	14	10	0.23	4	0.24
3	SR 85	from Union Avenue to South Bascom Avenue	NB	AM	17	2	4,400	3,100	3,140	**92**	**F**	14	1	1,650	1,400	1,415	**101**	**F**	55	40	0.90	15	0.93
			NB	PM	66	2	4,400	3,170	3,203	24	C	70	1	1,650	980	993	14	B	46	33	0.75	13	0.78
4	SR 85	from South Bascom Avenue to SR 17	NB	AM	10	2	4,400	2,280	2,314	**116**	**F**	10	1	1,650	1,160	1,173	**117**	**F**	47	34	0.77	13	0.79
			NB	PM	67	2	4,400	2,130	2,158	16	B	70	1	1,650	1,540	1,551	22	C	39	28	0.64	11	0.66
5	SR 85	from SR 17 to Winchester Boulevard	NB	AM	10	2	4,400	2,340	2,374	**119**	**F**	9	1	1,650	1,100	1,113	**124**	**F**	47	34	0.77	13	0.80
			NB	PM	67	2	4,400	2,000	2,028	15	B	70	1	1,650	560	571	8	A	39	28	0.64	11	0.66
6	SR 85	from Winchester Boulevard to Saratoga Avenue	NB	AM	21	2	4,400	3,410	3,444	**82**	**F**	29	1	1,650	1,890	1,903	**66**	**F**	47	34	0.77	13	0.80
			NB	PM	65	2	4,400	4,030	4,058	31	D	70	1	1,650	700	711	10	A	39	28	0.64	11	0.66
7	SR 85	from Saratoga Avenue to Saratoga-Sunnyvale Road	NB	AM	30	2	4,400	3,840	3,857	**64**	**F**	42	1	1,650	2,100	2,107	50	E	24	17	0.38	7	0.40
			NB	PM	66	2	4,400	2,780	2,788	21	C	70	1	1,650	630	633	9	A	12	8	0.19	3	0.20
8	SR 85	from Saratoga-Sunnyvale Road to Saratoga Avenue	SB	AM	67	2	4,400	2,400	2,426	18	B	67	1	1,650	540	550	8	A	37	26	0.60	10	0.62
			SB	PM	25	2	4,400	3,650	3,656	**73**	**F**	40	1	1,650	2,160	2,162	54	E	9	6	0.15	2	0.15
9	SR 85	from Saratoga Avenue to Winchester Boulevard	SB	AM	66	2	4,400	3,170	3,223	24	C	67	1	1,650	470	490	7	A	73	53	1.20	20	1.24
			SB	PM	35	2	4,400	4,060	4,073	58	E	60	1	1,650	2,340	2,345	39	D	18	13	0.29	5	0.30
10	SR 85	from Winchester Boulevard to SR 17	SB	AM	67	2	4,400	1,600	1,653	12	B	67	1	1,650	670	690	10	A	73	53	1.20	20	1.24
			SB	PM	16	2	4,400	3,010	3,023	**94**	**F**	50	1	1,650	2,300	2,305	46	D	18	13	0.29	5	0.30
11	SR 85	from SR 17 to South Bascom Avenue	SB	AM	67	2	4,400	2,400	2,462	18	B	67	1	1,650	740	764	11	A	86	62	1.41	24	1.46
			SB	PM	9	2	4,400	2,200	2,215	**123**	**F**	20	1	1,650	1,760	1,766	**88**	**F**	21	15	0.34	6	0.36
12	SR 85	from South Bascom Avenue to Union Avenue	SB	AM	66	2	4,400	2,910	2,972	23	C	67	1	1,650	470	494	7	A	86	62	1.41	24	1.46
			SB	PM	14	2	4,400	2,780	2,795	**100**	**F**	30	1	1,650	1,950	1,956	**65**	**F**	21	15	0.34	6	0.36
13	SR 85	from Union Avenue to Camden Avenue	SB	AM	64	2	4,400	4,230	4,255	33	D	67	1	1,650	340	350	5	A	35	25	0.57	10	0.59
			SB	PM	36	2	4,400	4,040	4,053	56	E	60	1	1,650	2,460	2,465	41	D	18	13	0.29	5	0.31
14	SR 85	from Camden Avenue to Almaden Expressway	SB	AM	66	2	4,400	2,780	2,805	21	C	67	1	1,650	410	420	6	A	35	25	0.57	10	0.59
			SB	PM	55	2	4,400	4,400	4,413	40	D	70	1	1,650	2,240	2,245	32	D	18	13	0.29	5	0.31

[1] Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2016.
Bold indicates unacceptable LOS.

6. Conclusions

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 (Policy 5-1) and the *Transportation Analysis Handbook 2018*, the transportation analysis report for the project includes a CEQA transportation analysis (TA) and a local transportation analysis (LTA). The CEQA transportation analysis comprises an evaluation of Vehicle Miles Traveled (VMT). The LTA supplements the CEQA transportation analysis by identifying transportation operational issues via an evaluation of weekday AM and PM peak-hour traffic conditions for seven signalized intersections and two freeway ramps in the vicinity of the project site. The LTA also includes an analysis of site access, on-site circulation, parking, vehicle queuing, and effects to transit, bicycle, and pedestrian access.

The effects of the project on nearby freeway segments were evaluated in accordance with the methodologies described in the Santa Clara Valley Transportation Authority's (VTA) *Transportation Impact Analysis Guidelines* (2014). The VTA administers the Santa Clara County Congestion Management Program (CMP).

CEQA Transportation Impacts

Project Vehicle Miles Traveled (VMT) Impacts and Mitigation Measures

Project Impact: The VMT generated by the project (13.83 per employee/student) would exceed the threshold of 12.22 VMT per employee/student; therefore, the project would result in a significant transportation impact on VMT, and mitigation measures are required to reduce the significant VMT impact.

Mitigation Measures: The following mitigation measures would reduce the significant VMT impact.

- **TDM Programs**
  - Operate a shuttle service for all students and employees.
  - Implement a School Pool program

These mitigation measures would reduce the project VMT by improving student transport and transit access. The combination of these mitigation measures would reduce the project VMT to 10.37 per employee/student, which would reduce the project impact to a less than significant level.

CEQA Cumulative Impacts

The project is consistent with the General Plan goals and policies for the following reasons:

- The project site is adjacent to a bus stop and bicycle lanes on Union Avenue.
- The project would increase the equivalent employment density in the project area.
- The project would implement a TDM plan that includes shuttle service and a School Pool program.
- The project would provide a free intercampus shuttle for all students and faculty.

Therefore, the project would be considered as part of the cumulative solution to meet the General Plan's long-range transportation goals and would result in a less-than-significant cumulative impact.

Local Transportation Analysis

Intersection Traffic Operations

Based on the City of San Jose intersection operations analysis criteria, none of the study intersections would be adversely affected by the project.

Other Transportation Issues

The proposed site plan shows adequate site access and on-site circulation. The project would not have an adverse effect on the existing pedestrian or bicycle facilities in the study area. The proposed new signal on Union Avenue at the relocated northern project driveway would increase delay for transit route 62 that currently operates on Union Avenue by 20 seconds during the AM peak hour and 5 seconds during the PM peak hour.

The following recommendations were identified to address issues associated with intersection queuing, site access, on-site circulation, and parking:

- Include raised median islands (not striped medians) on Union Avenue as part of the new signal design to prevent left turns at the southern project driveway.
- Station school staff members and/or parent volunteers at the drop-off/pick-up area during school peak hours to ensure student safety and to direct vehicles to pull as far forward as possible to make effective use of the on-site queuing space.
- Implement staggered start and end times for all grade levels to reduce vehicle queues that would develop during student loading operations both on-site and within the northbound left turn pocket at the new traffic signal on Union Avenue.
    - Alternatively, implement additional shuttle service so that half of the students use the school shuttle buses to reduce vehicle queuing before and after school.
- Coordinate with the City of San Jose Planning Department to determine the number of bicycle parking spaces that should be provided on site.

4525 Union Avenue TA
Technical Appendices

February 22, 2019

Appendix A
Traffic Counts

Harker Middle School Union Avenue TIA Count Summary

Int #	Traffix Node#	Intersection	Location	Count Date AM	Count Date PM
1	3088	Union Avenue and Camden Avenue*	San Jose	10/11/2016	10/12/2016
2	3833	Union Avenue and Woodard Road	San Jose	5/9/2017	5/9/2017
3	987	Union Avenue and Charmeran Avenue	SC County	12/5/2017	12/5/2017
4	3410	Union Avenue and Cole Drive	San Jose	2/6/2018	2/6/2018
5	3204	Union Avenue and SR 85 (N)	San Jose	5/9/2017	5/9/2017
6	3205	Union Avenue and SR 85 (S)/Samaritan Drive	San Jose	10/11/2016	5/9/2017
7	3203	SR 85 and Samaritan Drive	San Jose	5/9/2017	5/9/2017

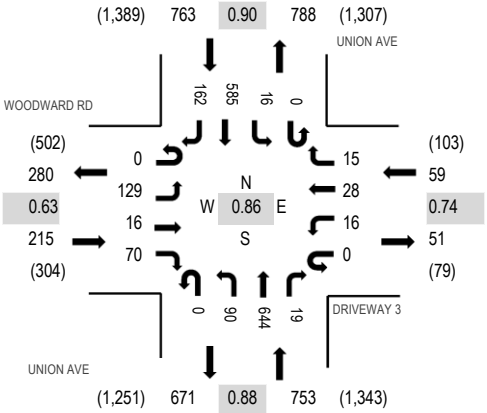
* Denotes CMP Intersection

Turning movement counts at Int#2 are named as Union Ave & Drwy 3 on the attached counts

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

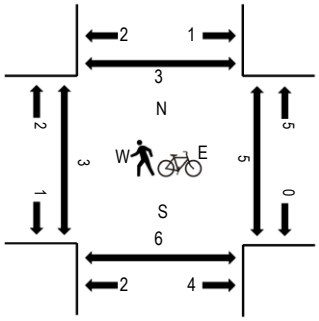
Location: 3 UNION AVE & DRIVEWAY 3 AM
Date and Start Time: Tuesday, May 09, 2017
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	WOODWARD RD Eastbound				DRIVEWAY 3 Westbound				UNION AVE Northbound				UNION AVE Southbound					Rolling Hour	Pedestrain Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	8	0	6	0	3	0	3	0	15	92	0	0	2	98	22	249	1,463	0	0	0	1
7:15 AM	0	7	1	5	0	2	6	8	0	33	106	5	0	0	125	18	316	1,622	0	1	0	0
7:30 AM	0	10	2	21	0	2	6	1	0	43	111	2	0	0	143	39	380	1,758	0	0	0	0
7:45 AM	0	50	6	30	0	4	13	3	0	26	172	1	0	3	153	57	518	1,790	1	0	0	0
8:00 AM	0	40	2	17	0	3	4	5	0	15	149	3	0	5	136	29	408	1,676	0	1	1	1
8:15 AM	0	21	3	8	0	4	8	2	0	32	174	8	0	3	147	42	452		1	0	2	0
8:30 AM	0	18	5	15	0	5	3	5	0	17	149	7	0	5	149	34	412		0	4	1	1
8:45 AM	0	14	3	12	0	4	5	4	0	20	155	8	0	5	159	15	404		2	0	0	2

Peak Rolling Hour Flow Rates

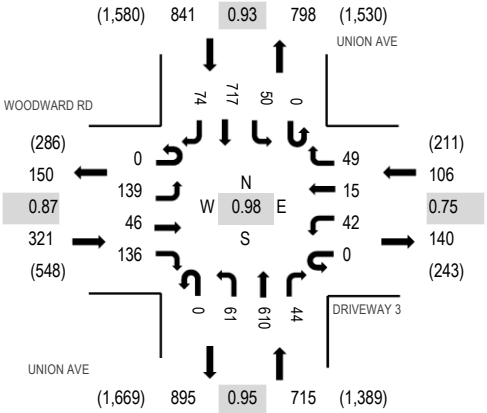
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
Lights	0	127	16	69	0	16	28	14	0	89	634	19	0	15	571	160	1,758
Mediums	0	2	0	1	0	0	0	1	0	1	10	0	0	1	11	2	29
Total	0	129	16	70	0	16	28	15	0	90	644	19	0	16	585	162	1,790

All Traffic Data Services Inc.

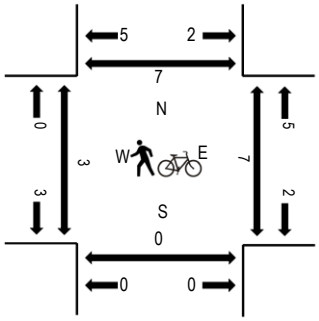
(303) 216-2439
www.alltrafficdata.net

Location: 3 UNION AVE & DRIVEWAY 3 PM
Date and Start Time: Tuesday, May 09, 2017
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	WOODWARD RD Eastbound				DRIVEWAY 3 Westbound				UNION AVE Northbound				UNION AVE Southbound					Rolling Hour	Pedestrain Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	27	5	17	0	9	3	15	0	15	162	3	0	13	169	6	444	1,745	0	0	2	0
4:15 PM	0	20	3	29	0	11	2	4	0	17	144	11	1	8	146	11	407	1,794	2	0	0	1
4:30 PM	0	20	11	29	0	19	3	16	0	11	150	6	0	12	142	25	444	1,892	1	0	1	3
4:45 PM	0	32	3	31	0	9	4	10	0	14	131	10	0	18	163	25	450	1,952	0	1	0	2
5:00 PM	0	37	7	30	0	13	4	14	0	14	167	7	0	9	171	20	493	1,983	0	2	0	2
5:15 PM	0	37	17	38	0	8	1	13	0	22	141	13	0	17	176	22	505		0	0	0	0
5:30 PM	0	35	11	33	0	11	6	12	0	13	145	10	0	14	201	13	504		3	0	0	2
5:45 PM	0	30	11	35	0	10	4	10	0	12	157	14	0	10	169	19	481		0	4	0	3

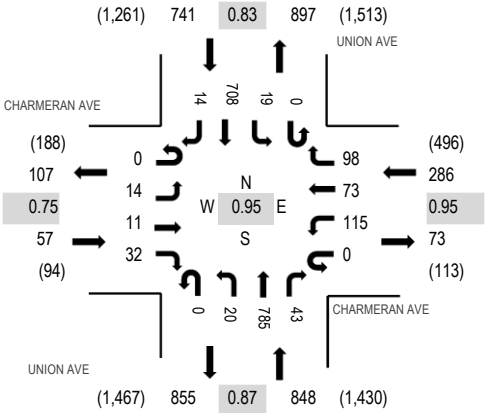
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	139	46	136	0	42	15	47	0	61	606	44	0	49	711	72	1,968
Mediums	0	0	0	0	0	0	0	2	0	0	4	0	0	1	6	2	15
Total	0	139	46	136	0	42	15	49	0	61	610	44	0	50	717	74	1,983

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

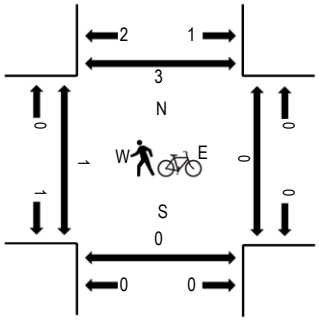
Location: 1 UNION AVE & CHARMERAN AVE AM
Date and Start Time: Tuesday, December 5, 2017
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	CHARMERAN AVE Eastbound				CHARMERAN AVE Westbound				UNION AVE Northbound				UNION AVE Southbound					Rolling Hour	Pedestrain Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	4	0	0	0	24	8	12	0	3	119	4	0	2	89	1	266	1,455	0	3	0	0
7:15 AM	0	1	3	4	0	25	11	13	0	1	111	11	0	1	122	0	303	1,684	0	1	0	0
7:30 AM	0	1	6	5	0	27	38	18	0	2	166	3	0	0	124	3	393	1,889	0	1	0	1
7:45 AM	0	2	4	10	0	33	27	20	0	8	156	11	0	9	211	2	493	1,932	0	0	0	2
8:00 AM	0	7	2	12	0	35	23	26	0	6	199	13	0	5	161	6	495	1,826	0	0	0	0
8:15 AM	0	1	4	9	0	19	13	41	0	5	230	9	0	3	170	4	508		1	0	0	0
8:30 AM	0	4	1	1	0	28	10	11	0	1	200	10	0	2	166	2	436		0	0	0	0
8:45 AM	0	3	5	5	0	15	6	13	0	4	155	3	0	2	172	4	387		2	0	0	0

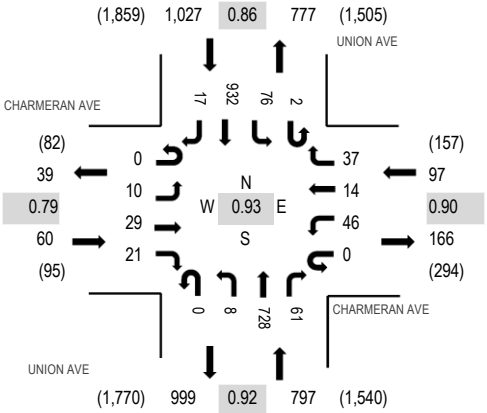
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
Lights	0	14	11	30	0	115	73	97	0	20	771	42	0	19	699	13	1,904
Mediums	0	0	0	2	0	0	0	1	0	0	13	0	0	0	9	1	26
Total	0	14	11	32	0	115	73	98	0	20	785	43	0	19	708	14	1,932

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

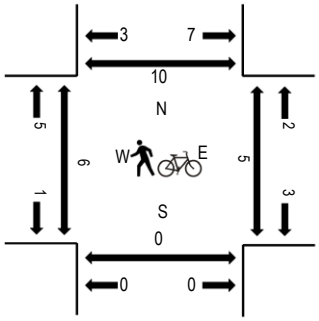
Location: 1 UNION AVE & CHARMERAN AVE PM
Date and Start Time: Tuesday, December 5, 2017
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:30 PM - 05:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	CHARMERAN AVE Eastbound				CHARMERAN AVE Westbound				UNION AVE Northbound				UNION AVE Southbound					Rolling Hour	Pedestrain Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	1	1	2	0	6	5	3	0	3	197	10	0	11	165	6	410	1,757	1	2	0	0
4:15 PM	0	3	1	4	0	7	3	6	0	2	173	9	0	15	175	8	406	1,829	4	0	0	1
4:30 PM	0	3	6	3	0	2	3	7	0	1	180	12	0	17	232	3	469	1,919	1	2	0	3
4:45 PM	0	3	8	6	0	11	3	8	0	2	168	16	0	19	225	3	472	1,981	1	1	0	0
5:00 PM	0	5	8	6	0	11	3	10	0	2	186	11	1	10	223	6	482	1,894	1	4	0	1
5:15 PM	0	1	6	3	0	14	2	11	0	2	202	13	1	17	221	3	496		1	0	0	3
5:30 PM	0	1	7	6	0	10	6	8	0	2	172	21	0	30	263	5	531		2	0	0	3
5:45 PM	0	3	5	3	0	7	3	8	0	2	144	10	0	31	165	4	385		1	2	0	0

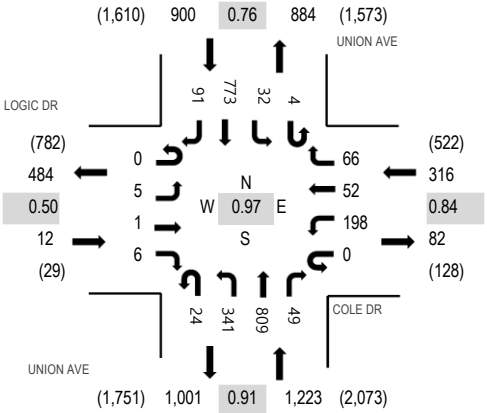
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Lights	0	10	28	20	0	46	14	37	0	8	721	61	2	75	924	16	1,962
Mediums	0	0	1	1	0	0	0	0	0	0	6	0	0	1	8	1	18
Total	0	10	29	21	0	46	14	37	0	8	728	61	2	76	932	17	1,981

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

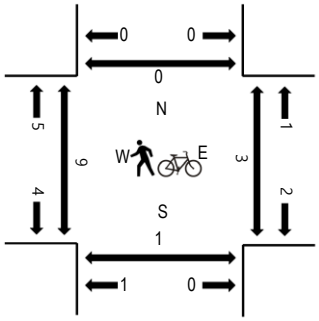
Location: 1 UNION AVE & COLE DR AM
Date and Start Time: Tuesday, February 6, 2018
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	LOGIC DR Eastbound				COLE DR Westbound				UNION AVE Northbound				UNION AVE Southbound					Rolling Hour	Pedestrain Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	1	1	1	21	3	13	3	28	114	4	0	1	109	9	308	1,805	2	0	0	0
7:15 AM	0	0	0	2	0	25	4	18	1	31	125	1	0	2	130	8	347	2,088	1	3	0	0
7:30 AM	0	1	0	1	0	43	7	15	5	33	196	8	0	12	185	11	517	2,358	0	0	0	0
7:45 AM	0	0	0	1	0	56	8	15	4	61	185	7	0	16	256	24	633	2,451	2	1	0	0
8:00 AM	0	1	0	2	0	65	14	20	9	71	183	19	0	3	185	19	591	2,429	1	0	0	0
8:15 AM	0	2	0	1	0	48	20	23	6	95	236	13	0	4	147	22	617		0	0	0	0
8:30 AM	0	2	1	2	0	29	10	8	5	114	205	10	4	9	185	26	610		2	1	0	0
8:45 AM	0	7	1	3	0	22	12	22	3	114	175	9	3	6	196	38	611		5	0	0	0

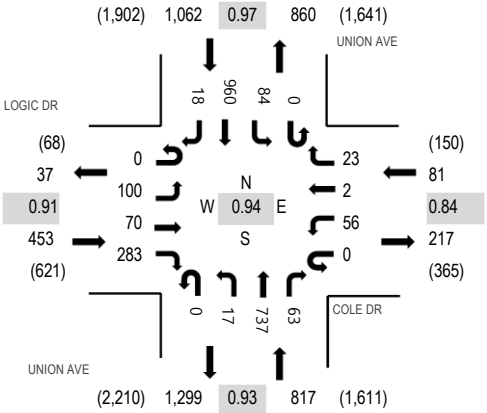
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Lights	0	5	1	6	0	198	52	65	24	340	793	49	4	31	757	91	2,416
Mediums	0	0	0	0	0	0	0	1	0	1	15	0	0	1	16	0	34
Total	0	5	1	6	0	198	52	66	24	341	809	49	4	32	773	91	2,451

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

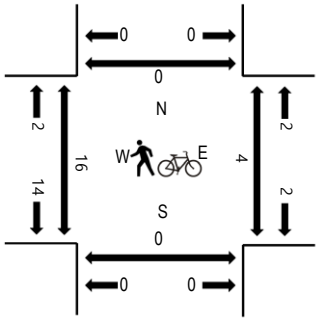
Location: 1 UNION AVE & COLE DR PM
Date and Start Time: Tuesday, February 6, 2018
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	LOGIC DR Eastbound				COLE DR Westbound				UNION AVE Northbound				UNION AVE Southbound					Rolling Hour	Pedestrain Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	7	1	26	0	13	0	5	2	5	169	12	0	5	166	3	414	1,871	5	0	2	0
4:15 PM	0	9	7	11	0	17	0	7	1	8	184	9	0	25	160	3	441	2,097	6	0	0	0
4:30 PM	0	10	5	26	0	13	1	3	1	1	174	19	0	15	233	3	504	2,226	0	2	0	0
4:45 PM	0	17	13	36	0	6	1	3	0	1	193	15	0	22	200	5	512	2,294	3	0	0	0
5:00 PM	0	28	21	75	0	17	1	6	0	3	204	15	0	20	247	3	640	2,413	7	2	0	0
5:15 PM	0	11	21	69	0	13	0	6	0	4	177	17	0	17	231	4	570		4	1	0	0
5:30 PM	0	25	15	63	0	13	1	5	0	5	166	13	0	19	244	3	572		2	0	0	0
5:45 PM	0	36	13	76	0	13	0	6	0	5	190	18	0	28	238	8	631		3	0	0	0

Peak Rolling Hour Flow Rates

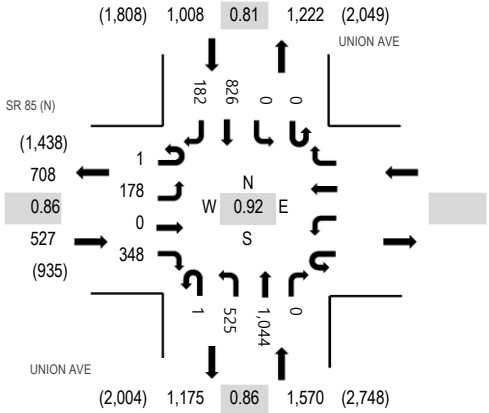
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	0	99	70	283	0	56	2	23	0	17	728	63	0	83	956	18	2,398
Mediums	0	1	0	0	0	0	0	0	0	0	9	0	0	1	4	0	15
Total	0	100	70	283	0	56	2	23	0	17	737	63	0	84	960	18	2,413

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

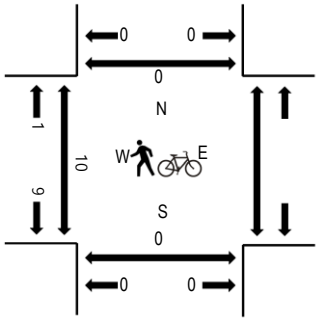
Location: 3 UNION AVE & SR 85 (N) AM
Date and Start Time: Tuesday, May 9, 2017
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	SR 85 (N) Eastbound				Westbound				UNION AVE Northbound				UNION AVE Southbound				Total	Rolling Hour	Pedestrain Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	33	0	38					0	151	104	0	0	0	101	43	470	2,516	0		0	0
7:15 AM	0	34	0	41					2	130	140	0	0	0	137	61	545	2,815	1		0	0
7:30 AM	0	45	0	68					0	136	179	0	0	0	178	52	658	3,052	1		0	0
7:45 AM	0	62	0	91					0	114	257	0	0	0	270	49	843	3,105	0		0	0
8:00 AM	1	41	0	91					0	144	217	0	0	0	237	38	769	2,975	1		0	0
8:15 AM	0	29	0	81					1	145	311	0	0	0	178	37	782		0		0	0
8:30 AM	0	46	0	85					0	122	259	0	0	0	141	58	711		0		0	0
8:45 AM	2	62	0	85					3	103	230	0	0	0	176	52	713		4		0	0

Peak Rolling Hour Flow Rates

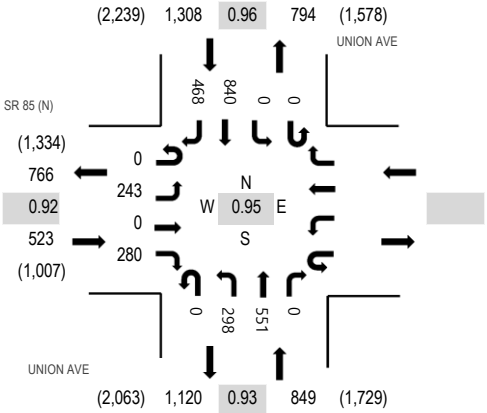
Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0					0	1	0	0	0	0	2	0	3
Lights	1	177	0	343					1	522	1,037	0	0	0	813	181	3,075
Mediums	0	1	0	5					0	2	7	0	0	0	11	1	27
Total	1	178	0	348					1	525	1,044	0	0	0	826	182	3,105

All Traffic Data Services Inc.

(303) 216-2439
www.alltrafficdata.net

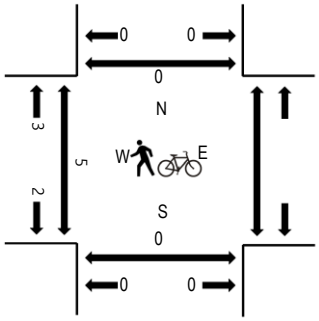
Location: 3 UNION AVE & SR 85 (N) PM
Date and Start Time: Tuesday, May 9, 2017
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	SR 85 (N) Eastbound				Westbound				UNION AVE Northbound				UNION AVE Southbound				Total	Rolling Hour	Pedestrain Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	35	0	70					1	67	160	0	0	0	157	54	544	2,295	1		0	0
4:15 PM	0	63	0	72					0	72	149	0	0	0	155	65	576	2,458	0		0	0
4:30 PM	0	41	0	70					0	86	145	0	0	0	157	74	573	2,534	0		0	0
4:45 PM	0	57	0	76					0	66	134	0	0	0	185	84	602	2,634	0		0	0
5:00 PM	0	55	0	75					0	91	149	0	0	0	212	125	707	2,680	0		0	0
5:15 PM	0	69	0	76					0	69	124	0	0	0	215	99	652		3		0	0
5:30 PM	0	49	0	75					0	68	141	0	0	0	221	119	673		1		0	0
5:45 PM	0	70	0	54					0	70	137	0	0	0	192	125	648		1		0	0

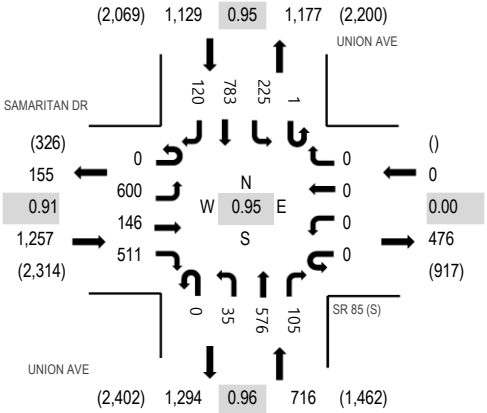
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0					0	0	0	0	0	0	0	0	0
Lights	0	243	0	279					0	296	548	0	0	0	836	468	2,670
Mediums	0	0	0	1					0	2	3	0	0	0	4	0	10
Total	0	243	0	280					0	298	551	0	0	0	840	468	2,680

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

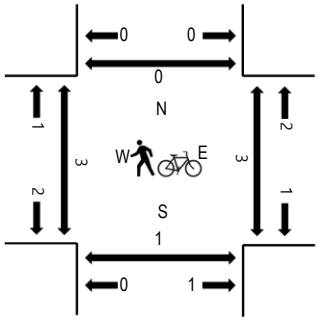
Location: 4 UNION AVE & SR 85 (S) PM
Date and Start Time: Tuesday, May 9, 2017
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles in Crosswalk



Traffic Counts

Interval Start Time	SAMARITAN DR Eastbound				SR 85 (S) Westbound				UNION AVE Northbound				UNION AVE Southbound					Rolling Hour	Pedestrain Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	144	32	112	0	0	0	0	0	8	133	26	0	34	155	41	685	2,743	1	1	0	0
4:15 PM	0	102	41	102	0	0	0	0	0	10	145	24	0	31	164	31	650	2,872	0	2	0	0
4:30 PM	0	120	47	114	0	0	0	0	0	11	148	44	0	35	163	33	715	2,949	0	0	2	0
4:45 PM	0	81	41	121	0	0	0	0	0	7	149	41	1	45	177	30	693	3,008	0	1	0	0
5:00 PM	0	155	54	134	0	0	0	0	0	7	161	29	0	54	188	32	814	3,102	0	1	0	0
5:15 PM	0	133	25	118	0	0	0	0	0	14	123	19	0	59	209	27	727		0	0	0	0
5:30 PM	0	141	39	114	0	0	0	0	0	6	144	33	1	55	208	33	774		1	1	0	0
5:45 PM	0	171	28	145	0	0	0	0	0	8	148	24	0	57	178	28	787		2	0	1	0

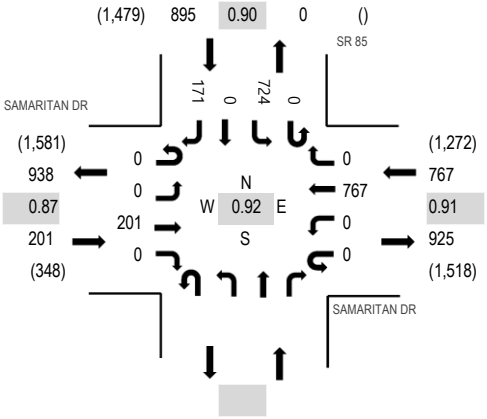
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Lights	0	597	144	508	0	0	0	0	0	33	573	104	1	225	782	118	3,085
Mediums	0	3	2	3	0	0	0	0	0	2	2	1	0	0	1	2	16
Total	0	600	146	511	0	0	0	0	0	35	576	105	1	225	783	120	3,102

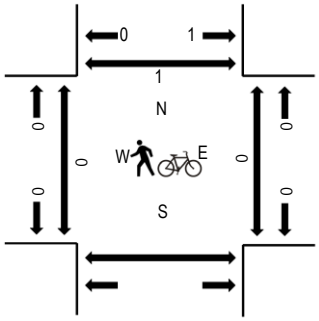
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 5 SR 85 & SAMARITAN DR AM
Date and Start Time: Tuesday, May 9, 2017
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	SAMARITAN DR Eastbound				SAMARITAN DR Westbound				Northbound				SR 85 Southbound					Rolling Hour	Pedestrain Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	16	0	0	0	81	0					0	67	0	25	189	1,308	0	0		0
7:15 AM	0	0	26	0	0	0	121	0					0	87	0	21	255	1,578	0	0		0
7:30 AM	0	0	60	0	0	0	142	0					0	119	0	35	356	1,819	0	0		0
7:45 AM	0	0	50	0	0	0	213	0					0	203	0	42	508	1,863	0	0		0
8:00 AM	0	0	58	0	0	0	213	0					0	148	0	40	459	1,791	0	0		1
8:15 AM	0	0	40	0	0	0	208	0					0	193	0	55	496		0	0		0
8:30 AM	0	0	53	0	0	0	133	0					0	180	0	34	400		0	0		0
8:45 AM	0	0	45	0	0	0	161	0					0	173	0	57	436		0	0		0

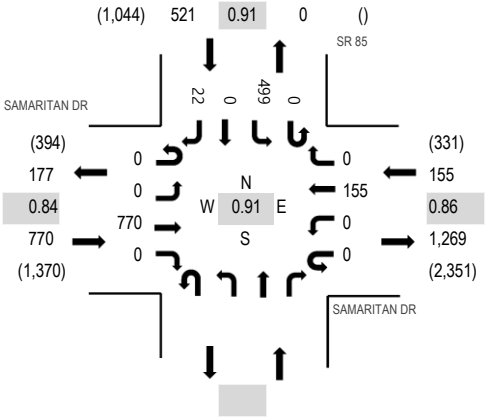
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	0	197	0	0	0	760	0					0	717	0	168	1,842
Mediums	0	0	4	0	0	0	7	0					0	7	0	3	21
Total	0	0	201	0	0	0	767	0					0	724	0	171	1,863

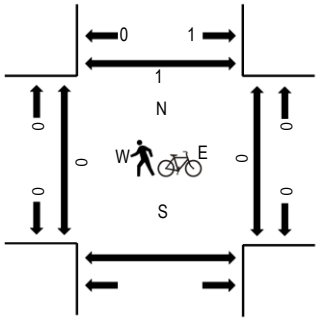
All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

Location: 5 SR 85 & SAMARITAN DR PM
Date and Start Time: Tuesday, May 9, 2017
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:45 PM - 06:00 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	SAMARITAN DR Eastbound				SAMARITAN DR Westbound				Northbound				SR 85 Southbound					Rolling Hour	Pedestrain Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	172	0	0	0	51	0					0	132	0	12	367	1,299	0	0		0
4:15 PM	0	0	115	0	0	0	41	0					0	121	0	11	288	1,311	0	0		0
4:30 PM	0	0	162	0	0	0	45	0					0	117	0	8	332	1,346	0	0		0
4:45 PM	0	0	151	0	0	0	39	0					0	112	0	10	312	1,360	0	0		0
5:00 PM	0	0	228	0	0	0	39	0					0	105	0	7	379	1,446	0	0		1
5:15 PM	0	0	183	0	0	0	41	0					0	95	0	4	323		0	0		0
5:30 PM	0	0	207	0	0	0	41	0					0	96	0	2	346		0	0		0
5:45 PM	0	0	152	0	0	0	34	0					0	203	0	9	398		0	0		0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0					0	0	0	0	0
Lights	0	0	766	0	0	0	151	0					0	494	0	19	1,430
Mediums	0	0	4	0	0	0	4	0					0	5	0	3	16
Total	0	0	770	0	0	0	155	0					0	499	0	22	1,446

Appendix B
San Jose ATI

Intersection of: CAMDEN/UNION

Traffix Node Number: 3088

Permit No. / 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
PD12-027 HARKER SCHOOL ROUTE 85/UNION AVE.	0	0	0	0	0	0	0	0	0	0	0	0
PDC15-028 SAMARITAN MEDICAL EXPANSION 2577 & 2512 SAMARITAN DRIVE	0	0	11	0	0	0	0	3	0	41	11	0
TOTAL:	**0**	**0**	**11**	**0**	**0**	**0**	**0**	**3**	**0**	**41**	**11**	**0**

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	41	11	0
SOUTH	0	0	11
WEST	0	3	0

Permit No. / 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
PD12-027 HARKER SCHOOL ROUTE 85/UNION AVE.	0	0	0	0	0	0	0	0	0	0	0	0
PDC15-028 SAMARITAN MEDICAL EXPANSION 2577 & 2512 SAMARITAN DRIVE	0	0	63	0	0	0	0	17	0	25	7	0
TOTAL:	**0**	**0**	**63**	**0**	**0**	**0**	**0**	**17**	**0**	**25**	**7**	**0**

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	25	7	0
SOUTH	0	0	63
WEST	0	17	0

Intersection of: 85/SAMARITAN

Traffix Node Number: 3203

Permit No. / 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
PD12-027 HARKER SCHOOL ROUTE 85/UNION AVE.	0	0	0	0	0	0	0	0	0	0	0	0
PDC15-028 SAMARITAN MEDICAL EXPANSION 2577 & 2512 SAMARITAN DRIVE	0	0	0	0	0	10	0	53	0	0	183	0
TOTAL:	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**53**	**0**	**0**	**183**	**0**

	LEFT	THRU	RIGHT
NORTH	0	0	10
EAST	0	183	0
SOUTH	0	0	0
WEST	0	53	0

Permit No. / 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
PD12-027 HARKER SCHOOL ROUTE 85/UNION AVE.	0	0	0	0	0	0	0	0	0	0	0	0
PDC15-028 SAMARITAN MEDICAL EXPANSION 2577 & 2512 SAMARITAN DRIVE	0	0	0	0	0	6	0	293	0	0	111	0
TOTAL:	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**293**	**0**	**0**	**111**	**0**

	LEFT	THRU	RIGHT
NORTH	0	0	6
EAST	0	111	0
SOUTH	0	0	0
WEST	0	293	0

AM APPROVED TRIPS

09/29/2017

Intersection of: 85/UNION (N)

Traffix Node Number: 3204

Permit No. / 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
PD12-027 HARKER SCHOOL ROUTE 85/UNION AVE.	0	0	0	0	0	0	0	0	0	0	0	0
PDC15-028 SAMARITAN MEDICAL EXPANSION 2577 & 2512 SAMARITAN DRIVE	3	19	0	0	70	0	0	0	73	0	0	0
TOTAL:	**3**	**19**	**0**	**0**	**70**	**0**	**0**	**0**	**73**	**0**	**0**	**0**

	LEFT	THRU	RIGHT
NORTH	0	70	0
EAST	0	0	0
SOUTH	3	19	0
WEST	0	0	73

Intersection of: 85/UNION (N)

Traffix Node Number: 3204

Permit No. / 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
PD12-027 HARKER SCHOOL ROUTE 85/UNION AVE.	0	0	0	0	0	0	0	0	0	0	0	0
PDC15-028 SAMARITAN MEDICAL EXPANSION 2577 & 2512 SAMARITAN DRIVE	16	106	0	0	42	0	0	0	44	0	0	0
TOTAL:	**16**	**106**	**0**	**0**	**42**	**0**	**0**	**0**	**44**	**0**	**0**	**0**

	LEFT	THRU	RIGHT
NORTH	0	42	0
EAST	0	0	0
SOUTH	16	106	0
WEST	0	0	44

Intersection of: 85/UNION (S)

Traffix Node Number: 3205

Permit No. / 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
PD12-027 HARKER SCHOOL ROUTE 85/UNION AVE.	0	0	0	0	0	0	0	0	0	0	0	0
PDC15-028 SAMARITAN MEDICAL EXPANSION 2577 & 2512 SAMARITAN DRIVE	41	0	0	0	0	142	22	20	11	0	0	0
TOTAL:	**41**	**0**	**0**	**0**	**0**	**142**	**22**	**20**	**11**	**0**	**0**	**0**

	LEFT	THRU	RIGHT
NORTH	0	0	142
EAST	0	0	0
SOUTH	41	0	0
WEST	22	20	11

Permit No. / 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
PD12-027 HARKER SCHOOL ROUTE 85/UNION AVE.	0	0	0	0	0	0	0	0	0	0	0	0
PDC15-028 SAMARITAN MEDICAL EXPANSION 2577 & 2512 SAMARITAN DRIVE	25	0	0	0	0	86	122	108	63	0	0	0
TOTAL:	**25**	**0**	**0**	**0**	**0**	**86**	**122**	**108**	**63**	**0**	**0**	**0**

	LEFT	THRU	RIGHT
NORTH	0	0	86
EAST	0	0	0
SOUTH	25	0	0
WEST	122	108	63

Intersection of: UNION/WOODARD

Traffix Node Number: 3833

Permit No. / 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
PD12-027 HARKER SCHOOL ROUTE 85/UNION AVE.	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	0	0	0
SOUTH	0	0	0
WEST	0	0	0

Intersection of: UNION/WOODARD

Traffix Node Number: 3833

Permit No. / 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
PD12-027 HARKER SCHOOL ROUTE 85/UNION AVE.	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	LEFT	THRU	RIGHT
NORTH	0	0	0
EAST	0	0	0
SOUTH	0	0	0
WEST	0	0	0

Appendix C
Volume Summary

Intersection Number: 1
Traffix Node Number: 3088
Intersection Name: Union and Camden*
Peak Hour: AM
Count Date: 10/11/16

Date of Analysis: 02/05/18

Scenario	Southbound Approach RT	Southbound Approach TH	Southbound Approach LT	Westbound Approach RT	Westbound Approach TH	Westbound Approach LT	Northbound Approach RT	Northbound Approach TH	Northbound Approach LT	Eastbound Approach RT	Eastbound Approach TH	Eastbound Approach LT	Total
Existing Conditions	63	383	109	369	1754	262	115	480	259	129	587	98	*4608*
Approved Project Trips													
San Jose ATI	0	0	0	0	11	41	11	0	0	0	3	0	*66*
Enter Approved Project	0	0	0	0	0	0	0	0	0	0	0	0	*0*
Enter Approved Project	0	0	0	0	0	0	0	0	0	0	0	0	*0*
Total Approved Trips	*0*	*0*	*0*	*0*	*11*	*41*	*11*	*0*	*0*	*0*	*3*	*0*	66
Background Conditions	63	383	109	369	1765	303	126	480	259	129	590	98	*4674*
Proposed Project Trips	*0*	*9*	*0*	*0*	*0*	*9*	*30*	*30*	*46*	*36*	*0*	*0*	*160*
Background + Project Conditions	63	392	109	369	1765	312	156	510	305	165	590	98	*4834*
Pending Project Trips													
Enter Pending Project	0	1	13	8	33	66	29	11	57	15	65	0	*298*
Total Pending Trips	*0*	*1*	*13*	*8*	*33*	*66*	*29*	*11*	*57*	*15*	*65*	*0*	298
Cumlative No Project Conditions	63	384	122	377	1798	369	155	491	316	144	655	98	*4972*
Cumulative + Project Conditions	63	393	122	377	1798	378	185	521	362	180	655	98	*5132*

Intersection Number: 2
Traffix Node Number: 3833
Intersection Name: Union and Woodard
Peak Hour: AM
Count Date: 05/09/17

Date of Analysis: 02/05/18

Scenario	Southbound Approach RT	Southbound Approach TH	Southbound Approach LT	Westbound Approach RT	Westbound Approach TH	Westbound Approach LT	Northbound Approach RT	Northbound Approach TH	Northbound Approach LT	Eastbound Approach RT	Eastbound Approach TH	Eastbound Approach LT	Total
Existing Conditions	162	585	16	15	28	16	19	644	90	70	16	129	*1790*
Approved Project Trips													
San Jose ATI	0	41	0	0	0	0	0	11	2	7	0	0	*61*
Background Conditions	162	585	16	15	28	16	19	644	90	70	16	129	*1790*
Proposed Project Trips	*0*	*54*	*0*	*0*	*0*	*0*	*0*	*105*	*1*	*5*	*0*	*0*	*165*
Background + Project Conditions	162	639	16	15	28	16	19	749	91	75	16	129	*1955*
Pending Project Trips													
Enter Pending Project	9	80	-5	22	-26	38	2	74	6	0	-15	1	*186*
Total Pending Trips	*9*	*80*	*-5*	*22*	*-26*	*38*	*2*	*74*	*6*	*0*	*-15*	*1*	186
Cumlative No Project Conditions	171	706	11	37	2	54	21	729	98	77	1	130	*2037*
Cumulative + Project Conditions	171	760	11	37	2	54	21	834	99	82	1	130	*2202*

Intersection Number: 3
Traffix Node Number: 987
Intersection Name: Union and Charmeran
Peak Hour: AM
Count Date: 12/05/17

Date of Analysis: 02/05/18

Scenario	Southbound Approach RT	Southbound Approach TH	Southbound Approach LT	Westbound Approach RT	Westbound Approach TH	Westbound Approach LT	Northbound Approach RT	Northbound Approach TH	Northbound Approach LT	Eastbound Approach RT	Eastbound Approach TH	Eastbound Approach LT	Total
Existing Conditions	14	708	19	98	73	115	43	785	20	32	11	14	*1932*
Approved Project Trips													
San Jose ATI	0	55	0	0	0	7	2	15	2	7	0	0	*88*
Background Conditions	14	763	19	98	73	122	45	800	22	39	11	14	*2020*
Proposed Project Trips	*0*	*59*	*0*	*0*	*0*	*5*	*1*	*106*	*1*	*5*	*0*	*0*	*177*
Background + Project Conditions	14	822	19	98	73	127	46	906	23	44	11	14	*2197*
Pending Project Trips													
Enter Pending Project	0	60	0	28	0	5	0	39	0	0	0	0	*132*
Total Pending Trips	*0*	*60*	*0*	*28*	*0*	*5*	*0*	*39*	*0*	*0*	*0*	*0*	132
Cumlative No Project Conditions	14	823	19	126	73	127	45	839	22	39	11	14	*2152*
Cumulative + Project Conditions	14	882	19	126	73	132	46	945	23	44	11	14	*2329*

Intersection Number: 4

Traffix Node Number: 3410
Intersection Name: Union and Logic/Cole
Peak Hour: AM
Count Date: 02/06/18

Date of Analysis: 02/05/18

Scenario	Movements												
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	91	773	36	66	52	198	49	809	365	6	1	5	*2451*
Approved Project Trips													
San Jose ATI	0	70	0	0	0	0	0	19	0	0	0	0	*89*
Background Conditions	91	843	36	66	52	198	49	828	365	6	1	5	*2540*
Proposed Project Trips	*0*	*123*	*1*	*5*	*0*	*0*	*0*	*151*	*0*	*0*	*0*	*0*	*280*
Background + Project Conditions	91	966	37	71	52	198	49	979	365	6	1	5	*2820*
Pending Project Trips													
Enter Pending Project	0	65	0	0	0	0	0	39	0	0	0	0	*104*
Total Pending Trips	*0*	*65*	*0*	*0*	*0*	*0*	*0*	*39*	*0*	*0*	*0*	*0*	*104*
Cumlative No Project Conditions	91	908	36	66	52	198	49	867	365	6	1	5	*2644*
Cumulative + Project Conditions	91	1031	37	71	52	198	49	1018	365	6	1	5	*2924*

Intersection Number: 5
Traffix Node Number: 3204
Intersection Name: Union and SR 85 NB
Peak Hour: AM
Count Date: 05/09/17

Date of Analysis: 02/05/18

Scenario	Movements												
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	182	826	0	0	0	0	0	1044	526	348	0	179	*3105*
Approved Project Trips													
San Jose ATI	0	70	0	0	0	0	0	19	3	73	0	0	*165*
Background Conditions	182	896	0	0	0	0	0	1063	529	421	0	179	*3270*
Proposed Project Trips	*55*	*69*	*0*	*0*	*0*	*0*	*0*	*117*	*0*	*0*	*0*	*34*	*275*
Background + Project Conditions	237	965	0	0	0	0	0	1180	529	421	0	213	*3545*
Pending Project Trips													
Enter Pending Project	34	31	0	0	0	0	0	6	0	0	0	34	*105*
Total Pending Trips	*34*	*31*	*0*	*0*	*0*	*0*	*0*	*6*	*0*	*0*	*0*	*34*	*105*
Cumlative No Project Conditions	216	927	0	0	0	0	0	1069	529	421	0	213	*3375*
Cumulative + Project Conditions	271	996	0	0	0	0	0	1186	529	421	0	247	*3650*

Intersection Number: 6
Traffix Node Number: 3205
Intersection Name: Union and SR 85 SB
Peak Hour: AM
Count Date: 10/11/16

Date of Analysis: 02/05/18

Scenario	Movements												
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	515	455	185	0	0	0	208	789	277	343	74	422	*3268*
Approved Project Trips													
San Jose ATI	142	0	0	0	0	0	0	0	41	11	20	22	*236*
Background Conditions	657	455	185	0	0	0	208	789	318	354	94	444	*3504*
Proposed Project Trips	*15*	*19*	*35*	*0*	*0*	*0*	*0*	*29*	*0*	*0*	*0*	*88*	*186*
Background + Project Conditions	672	474	220	0	0	0	208	818	318	354	94	532	*3690*
Pending Project Trips													
Enter Pending Project	0	-3	34	0	0	0	0	-19	0	0	0	25	*37*
Total Pending Trips	*0*	*-3*	*34*	*0*	*0*	*0*	*0*	*-19*	*0*	*0*	*0*	*25*	*37*
Cumlative No Project Conditions	657	452	219	0	0	0	208	770	318	354	94	469	*3541*
Cumulative + Project Conditions	672	471	254	0	0	0	208	799	318	354	94	557	*3727*

Intersection Number: 7
Traffix Node Number: 3203
Intersection Name: Samaritan and SR 85 SB
Peak Hour: AM
Count Date: 05/09/17

Date of Analysis: 02/05/18

Scenario	Movements												
	Southbound Approach			Westbound Approach			Northbound Approach			Eastbound Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions	171	0	724	0	767	0	0	0	0	0	201	0	*1863*
Approved Project Trips													
San Jose ATI	10	0	0	0	183	0	0	0	0	0	53	0	*246*
Background Conditions	181	0	724	0	950	0	0	0	0	0	254	0	*2109*
Proposed Project Trips	*0*	*0*	*88*	*0*	*15*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*103*
Background + Project Conditions	181	0	812	0	965	0	0	0	0	0	254	0	*2212*
Pending Project Trips													
Enter Pending Project	0	0	25	0	0	0	0	0	0	0	0	0	*25*
Total Pending Trips	*0*	*0*	*25*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*25*
Cumlative No Project Conditions	181	0	749	0	950	0	0	0	0	0	254	0	*2134*
Cumulative + Project Conditions	181	0	837	0	965	0	0	0	0	0	254	0	*2237*

Intersection Number: 1
Traffix Node Number: 3088
Intersection Name: Union and Camden*
Peak Hour: PM
Count Date: 10/12/16

Date of Analysis: 02/05/18

Scenario	Southbound Approach RT	Southbound Approach TH	Southbound Approach LT	Westbound Approach RT	Westbound Approach TH	Westbound Approach LT	Northbound Approach RT	Northbound Approach TH	Northbound Approach LT	Eastbound Approach RT	Eastbound Approach TH	Eastbound Approach LT	Total
Existing Conditions	56	594	358	155	575	167	219	417	181	266	1936	79	5003
Approved Project Trips													
San Jose ATI	0	0	0	0	7	25	63	0	0	0	17	0	112
Background Conditions	56	594	358	155	582	192	282	417	181	266	1953	79	5115
Proposed Project Trips	*0*	*12*	*0*	*0*	*0*	*12*	*5*	*5*	*21*	*17*	*0*	*0*	*72*
Background + Project Conditions	56	606	358	155	582	204	287	422	202	283	1953	79	5187
Pending Project Trips													
Enter Pending Project	0	-4	21	12	45	32	42	7	40	7	86	0	288
Total Pending Trips	*0*	*-4*	*21*	*12*	*45*	*32*	*42*	*7*	*40*	*7*	*86*	*0*	*288*
Cumlative No Project Conditions	56	590	379	167	627	224	324	424	221	273	2039	79	5403
Cumulative + Project Conditions	56	602	379	167	627	236	329	429	242	290	2039	79	5475

Intersection Number: 2
Traffix Node Number: 3833
Intersection Name: Union and Woodard
Peak Hour: PM
Count Date: 05/09/17

Date of Analysis: 02/05/18

Scenario	Southbound Approach RT	Southbound Approach TH	Southbound Approach LT	Westbound Approach RT	Westbound Approach TH	Westbound Approach LT	Northbound Approach RT	Northbound Approach TH	Northbound Approach LT	Eastbound Approach RT	Eastbound Approach TH	Eastbound Approach LT	Total
Existing Conditions	74	717	50	49	15	42	44	610	61	136	46	139	1983
Approved Project Trips													
San Jose ATI	0	25	0	0	0	0	0	62	11	4	0	0	102
Background Conditions	74	742	50	49	15	42	44	672	72	140	46	139	2085
Proposed Project Trips	*0*	*40*	*0*	*0*	*0*	*0*	*0*	*30*	*2*	*0*	*0*	*0*	*72*
Background + Project Conditions	74	782	50	49	15	42	44	702	74	140	46	139	2157
Pending Project Trips													
Enter Pending Project	0	40	-15	-27	-10	23	-12	98	0	0	-44	2	55
Total Pending Trips	*0*	*40*	*-15*	*-27*	*-10*	*23*	*-12*	*98*	*0*	*0*	*-44*	*2*	*55*
Cumlative No Project Conditions	74	782	35	22	5	65	32	770	72	140	2	141	2140
Cumulative + Project Conditions	74	822	35	22	5	65	32	800	74	140	2	141	2212

Intersection Number: 3
Traffix Node Number: 987
Intersection Name: Union and Charmeran
Peak Hour: PM
Count Date: 12/05/17

Date of Analysis: 02/05/18

Scenario	Southbound Approach RT	Southbound Approach TH	Southbound Approach LT	Westbound Approach RT	Westbound Approach TH	Westbound Approach LT	Northbound Approach RT	Northbound Approach TH	Northbound Approach LT	Eastbound Approach RT	Eastbound Approach TH	Eastbound Approach LT	Total
Existing Conditions	17	932	78	37	14	46	61	728	8	21	29	10	1981
Approved Project Trips													
San Jose ATI	0	33	0	0	0	4	11	84	11	4	0	0	147
Background Conditions	17	965	78	37	14	50	72	812	19	25	29	10	2128
Proposed Project Trips	*0*	*41*	*0*	*0*	*0*	*0*	*2*	*32*	*2*	*0*	*0*	*0*	*77*
Background + Project Conditions	17	1006	78	37	14	50	74	844	21	25	29	10	2205
Pending Project Trips													
Enter Pending Project	0	38	0	0	0	0	0	57	0	0	0	0	95
Total Pending Trips	*0*	*38*	*0*	*0*	*0*	*0*	*0*	*57*	*0*	*0*	*0*	*0*	*95*
Cumlative No Project Conditions	17	1003	78	37	14	50	72	869	19	25	29	10	2223
Cumulative + Project Conditions	17	1044	78	37	14	50	74	901	21	25	29	10	2300

Intersection Number: 4
Traffix Node Number: 3410
Intersection Name: Union and Logic/Cole
Peak Hour: PM

Date of Analysis: 02/05/18

Count Date: 02/06/18

Scenario	Southbound Approach RT	Southbound Approach TH	Southbound Approach LT	Westbound Approach RT	Westbound Approach TH	Westbound Approach LT	Northbound Approach RT	Northbound Approach TH	Northbound Approach LT	Eastbound Approach RT	Eastbound Approach TH	Eastbound Approach LT	Total
Existing Conditions	18	960	84	23	2	56	63	737	17	283	70	100	*2413*
Approved Project Trips													
San Jose ATI	0	42	0	0	0	0	0	106	0	0	0	0	*148*
Background Conditions	18	1002	84	23	2	56	63	843	17	283	70	100	*2561*
Proposed Project Trips	*0*	*84*	*2*	*0*	*0*	*0*	*0*	*49*	*0*	*0*	*0*	*0*	*135*
Background + Project Conditions	18	1086	86	23	2	56	63	892	17	283	70	100	*2696*
Pending Project Trips													
Enter Pending Project	0	38	0	0	0	0	0	89	0	0	0	0	*127*
Total Pending Trips	*0*	*38*	*0*	*0*	*0*	*0*	*0*	*89*	*0*	*0*	*0*	*0*	*127*
Cumlative No Project Conditions	18	1040	84	23	2	56	63	932	17	283	70	100	*2688*
Cumulative + Project Conditions	18	1124	86	23	2	56	63	981	17	283	70	100	*2823*

Intersection Number: 5
Traffix Node Number: 3204
Intersection Name: Union and SR 85 NB
Peak Hour: PM
Count Date: 05/09/17
Date of Analysis: 02/05/18

Scenario	Southbound Approach RT	Southbound Approach TH	Southbound Approach LT	Westbound Approach RT	Westbound Approach TH	Westbound Approach LT	Northbound Approach RT	Northbound Approach TH	Northbound Approach LT	Eastbound Approach RT	Eastbound Approach TH	Eastbound Approach LT	Total
Existing Conditions	468	840	0	0	0	0	0	551	298	280	0	243	*2680*
Approved Project Trips													
San Jose ATI	0	42	0	0	0	0	0	106	16	44	0	0	*208*
Background Conditions	468	882	0	0	0	0	0	657	314	324	0	243	*2888*
Proposed Project Trips	*48*	*35*	*0*	*0*	*0*	*0*	*0*	*35*	*0*	*0*	*0*	*14*	*132*
Background + Project Conditions	516	917	0	0	0	0	0	692	314	324	0	257	*3020*
Pending Project Trips													
Enter Pending Project	24	15	0	0	0	0	0	16	0	0	0	42	*97*
Total Pending Trips	*24*	*15*	*0*	*0*	*0*	*0*	*0*	*16*	*0*	*0*	*0*	*42*	*97*
Cumlative No Project Conditions	492	897	0	0	0	0	0	673	314	324	0	285	*2985*
Cumulative + Project Conditions	540	932	0	0	0	0	0	708	314	324	0	299	*3117*

Intersection Number: 6
Traffix Node Number: 3205
Intersection Name: Union and SR 85 SB
Peak Hour: PM
Count Date: 05/09/17
Date of Analysis: 02/05/18

Scenario	Southbound Approach RT	Southbound Approach TH	Southbound Approach LT	Westbound Approach RT	Westbound Approach TH	Westbound Approach LT	Northbound Approach RT	Northbound Approach TH	Northbound Approach LT	Eastbound Approach RT	Eastbound Approach TH	Eastbound Approach LT	Total
Existing Conditions	120	783	226	0	0	0	105	576	35	511	146	600	*3102*
Approved Project Trips													
San Jose ATI	86	0	0	0	0	0	0	0	25	63	108	122	*404*
Background Conditions	206	783	226	0	0	0	105	576	60	574	254	722	*3506*
Proposed Project Trips	*0*	*16*	*19*	*0*	*0*	*0*	*0*	*7*	*0*	*0*	*0*	*28*	*70*
Background + Project Conditions	206	799	245	0	0	0	105	583	60	574	254	750	*3576*
Pending Project Trips													
Enter Pending Project	0	-18	33	0	0	0	0	-18	0	0	0	33	*30*
Total Pending Trips	*0*	*-18*	*33*	*0*	*0*	*0*	*0*	*-18*	*0*	*0*	*0*	*33*	*30*
Cumlative No Project Conditions	206	765	259	0	0	0	105	558	60	574	254	755	*3536*
Cumulative + Project Conditions	206	781	278	0	0	0	105	565	60	574	254	783	*3606*

Intersection Number: 7
Traffix Node Number: 3203
Intersection Name: Samaritan and SR 85 SB
Peak Hour: PM
Count Date: 05/09/17
Date of Analysis: 02/05/18

Scenario	Southbound Approach	Westbound Approach	Northbound Approach	Eastbound Approach

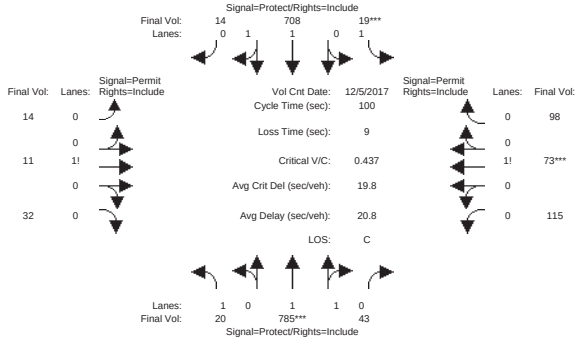
Scenario		RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	*Total*
Existing Conditions		22	0	499	0	155	0	0	0	0	0	770	0	*1446*
Approved Project Trips														
	San Jose ATI	6	0	0	0	111	0	0	0	0	0	293	0	*410*
Background Conditions		28	0	499	0	266	0	0	0	0	0	1063	0	*1856*
Proposed Project Trips		*0*	*0*	*22*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*6*	*0*	*28*
Background + Project Conditions		28	0	521	0	266	0	0	0	0	0	1069	0	*1884*
Pending Project Trips														
	Enter Pending Project	0	0	33	0	0	0	0	0	0	0	0	0	*33*
	Total Pending Trips	*0*	*0*	*33*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*33*
Cumlative No Project Conditions		28	0	532	0	266	0	0	0	0	0	1063	0	*1889*
Cumulative + Project Conditions		28	0	554	0	266	0	0	0	0	0	1069	0	*1917*

Appendix D
Level of Service Calculations

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #987: CHARMERAN/UNION



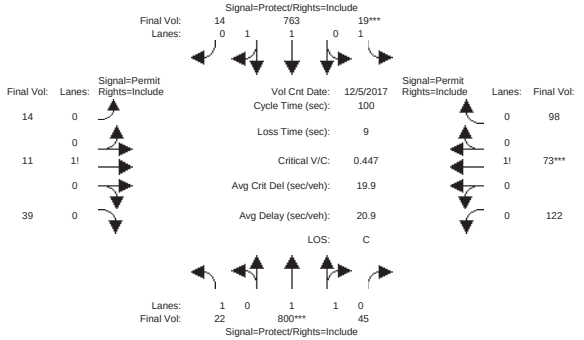
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 5 Dec 2017 <<												
Base Vol:	20	785	43	19	708	14	14	11	32	115	73	98
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:	20	785	43	19	708	14	14	11	32	115	73	98
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:	20	785	43	19	708	14	14	11	32	115	73	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	785	43	19	708	14	14	11	32	115	73	98
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:	20	785	43	19	708	14	14	11	32	115	73	98
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.97	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	1.89	0.11	1.00	1.96	0.04	0.25	0.19	0.56	0.40	0.26	0.34
Final Sat.:	1750	3508	192	1750	3628	72	430	338	982	704	447	600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.22	0.22	0.01	0.20	0.20	0.03	0.03	0.03	0.16	0.16	0.16
Crit Moves:		****		****							****	
Green Time:	14.7	48.5	48.5	7.0	40.9	40.9	35.5	35.5	35.5	35.5	35.5	35.5
Volume/Cap:	0.08	0.46	0.46	0.16	0.48	0.48	0.09	0.09	0.09	0.46	0.46	0.46
Delay/Veh:	37.0	17.2	17.2	44.3	22.0	22.0	21.6	21.6	21.6	25.4	25.4	25.4
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:	37.0	17.2	17.2	44.3	22.0	22.0	21.6	21.6	21.6	25.4	25.4	25.4
LOS by Move:	D	B	B	D	C	C	C	C	C	C	C	C
HCM2kAvgQ:	1	8	8	1	8	8	1	1	1	7	7	7

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #987: CHARMERAN/UNION



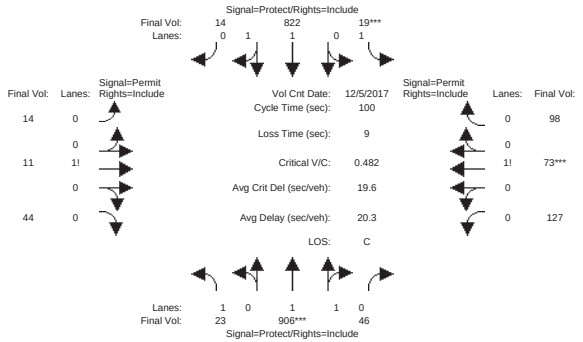
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 5 Dec 2017 <<												
Base Vol:	22	800	45	19	763	14	14	11	39	122	73	98
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:	22	800	45	19	763	14	14	11	39	122	73	98
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:	22	800	45	19	763	14	14	11	39	122	73	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	800	45	19	763	14	14	11	39	122	73	98
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:	22	800	45	19	763	14	14	11	39	122	73	98
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.97	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	1.89	0.11	1.00	1.96	0.04	0.22	0.17	0.61	0.42	0.25	0.33
Final Sat.:	1750	3503	197	1750	3633	67	383	301	1066	729	436	585
Capacity Analysis Module:												
Vol/Sat:	0.01	0.23	0.23	0.01	0.21	0.21	0.04	0.04	0.04	0.17	0.17	0.17
Crit Moves:		****		****							****	
Green Time:	13.9	48.5	48.5	7.0	41.6	41.6	35.5	35.5	35.5	35.5	35.5	35.5
Volume/Cap:	0.09	0.47	0.47	0.16	0.50	0.50	0.10	0.10	0.10	0.47	0.47	0.47
Delay/Veh:	37.7	17.4	17.4	44.3	21.9	21.9	21.6	21.6	21.6	25.5	25.5	25.5
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:	37.7	17.4	17.4	44.3	21.9	21.9	21.6	21.6	21.6	25.5	25.5	25.5
LOS by Move:	D	B	B	D	C	C	C	C	C	C	C	C
HCM2kAvgQ:	1	9	9	1	9	9	1	1	1	8	8	8

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Background+Project (AM)

Intersection #987: CHARMERAN/UNION



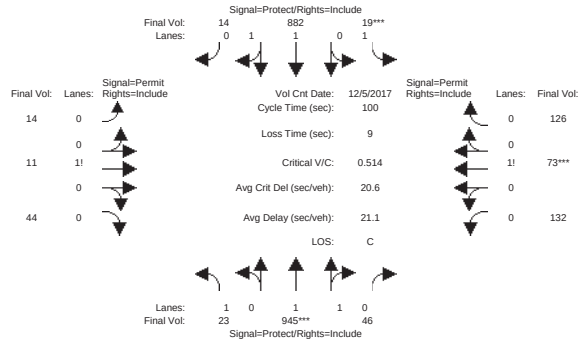
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 5 Dec 2017 <<												
Base Vol:	23	906	46	19	822	14	14	11	44	127	73	98
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:	23	906	46	19	822	14	14	11	44	127	73	98
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:	23	906	46	19	822	14	14	11	44	127	73	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	906	46	19	822	14	14	11	44	127	73	98
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:	23	906	46	19	822	14	14	11	44	127	73	98
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.97	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	1.90	0.10	1.00	1.97	0.03	0.20	0.16	0.64	0.43	0.24	0.33
Final Sat.:	1750	3521	179	1750	3638	62	355	279	1116	746	429	576
Capacity Analysis Module:												
Vol/Sat:	0.01	0.26	0.26	0.01	0.23	0.23	0.04	0.04	0.04	0.17	0.17	0.17
Crit Moves:		****		****							****	
Green Time:	13.6	50.5	50.5	7.0	43.9	43.9	33.5	33.5	33.5	33.5	33.5	33.5
Volume/Cap:	0.10	0.51	0.51	0.16	0.51	0.51	0.12	0.12	0.12	0.51	0.51	0.51
Delay/Veh:	38.0	16.7	16.7	44.3	20.6	20.6	23.1	23.1	23.1	27.4	27.4	27.4
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:	38.0	16.7	16.7	44.3	20.6	20.6	23.1	23.1	23.1	27.4	27.4	27.4
LOS by Move:	D	B	B	D	C	C	C	C	C	C	C	C
HCM2kAvgQ:	1	10	10	1	9	9	2	2	2	8	8	8

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Cumulative+Project (AM)

Intersection #987: CHARMERAN/UNION



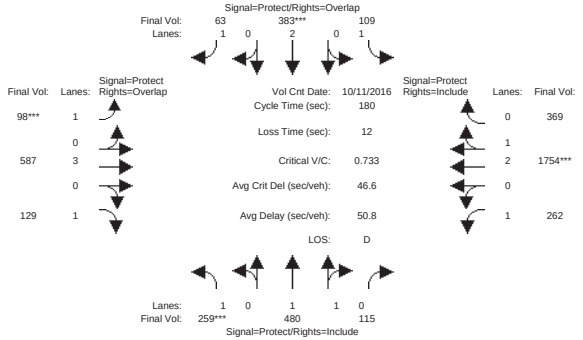
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 5 Dec 2017 <<												
Base Vol:	23	945	46	19	882	14	14	11	44	132	73	126
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:	23	945	46	19	882	14	14	11	44	132	73	126
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:	23	945	46	19	882	14	14	11	44	132	73	126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	945	46	19	882	14	14	11	44	132	73	126
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:	23	945	46	19	882	14	14	11	44	132	73	126
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.97	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	1.90	0.10	1.00	1.97	0.03	0.20	0.16	0.64	0.40	0.22	0.38
Final Sat.:	1750	3528	172	1750	3642	58	355	279	1116	698	386	666
Capacity Analysis Module:												
Vol/Sat:	0.01	0.27	0.27	0.01	0.24	0.24	0.04	0.04	0.04	0.19	0.19	0.19
Crit Moves:		****		****							****	
Green Time:	12.6	49.2	49.2	7.0	43.6	43.6	34.8	34.8	34.8	34.8	34.8	34.8
Volume/Cap:	0.10	0.54	0.54	0.16	0.56	0.56	0.11	0.11	0.11	0.54	0.54	0.54
Delay/Veh:	38.9	17.9	17.9	44.3	21.4	21.4	22.2	22.2	22.2	27.3	27.3	27.3
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:	38.9	17.9	17.9	44.3	21.4	21.4	22.2	22.2	22.2	27.3	27.3	27.3
LOS by Move:	D	B	B	D	C	C	C	C	C	C	C	C
HCM2kAvgQ:	1	11	11	1	10	10	2	2	2	9	9	9

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3088: CAMDEN/UNION



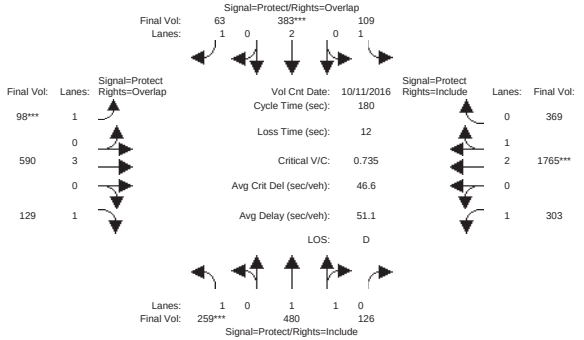
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 11 Oct 2016 <<												
Base Vol:	259	480	115	109	383	63	98	587	129	262	1754	369
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:	259	480	115	109	383	63	98	587	129	262	1754	369
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:	259	480	115	109	383	63	98	587	129	262	1754	369
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	259	480	115	109	383	63	98	587	129	262	1754	369
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:	259	480	115	109	383	63	98	587	129	262	1754	369
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.99	0.95
Lanes:	1.00	1.60	0.40	1.00	2.00	1.00	1.00	3.00	1.00	1.00	2.46	0.54
Final Sat.:	1750	2984	715	1750	3800	1750	1750	5700	1750	1750	4625	973
Capacity Analysis Module:												
Vol/Sat:	0.15	0.16	0.16	0.06	0.10	0.04	0.06	0.10	0.07	0.15	0.38	0.38
Crit Moves:	****				****		****				****	
Green Time:	36.4	44.0	44.0	17.1	24.8	38.5	13.8	43.6	79.9	63.3	93.1	93.1
Volume/Cap:	0.73	0.66	0.66	0.66	0.73	0.17	0.73	0.43	0.17	0.43	0.73	0.73
Delay/Veh:	75.0	63.0	63.0	87.9	79.8	57.9	100.0	57.9	30.1	44.9	34.8	34.8
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:	75.0	63.0	63.0	87.9	79.8	57.9	100.0	57.9	30.1	44.9	34.8	34.8
LOS by Move:	E	E	E	F	E	E	F	E	C	D	C	C
HCM2kAvgQ:	15	16	16	7	11	3	7	9	4	12	31	31

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3088: CAMDEN/UNION



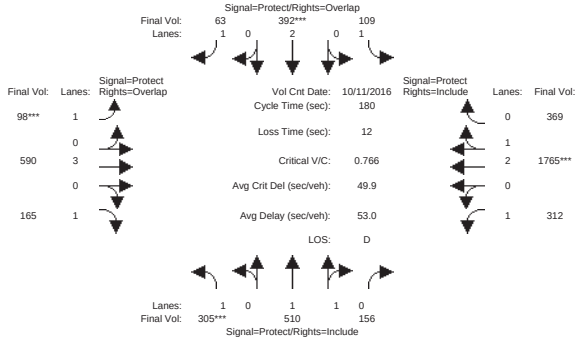
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 11 Oct 2016 <<												
Base Vol:	259	480	126	109	383	63	98	590	129	303	1765	369
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:	259	480	126	109	383	63	98	590	129	303	1765	369
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:	259	480	126	109	383	63	98	590	129	303	1765	369
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	259	480	126	109	383	63	98	590	129	303	1765	369
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:	259	480	126	109	383	63	98	590	129	303	1765	369
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.99	0.95
Lanes:	1.00	1.57	0.43	1.00	2.00	1.00	1.00	3.00	1.00	1.00	2.46	0.54
Final Sat.:	1750	2930	769	1750	3800	1750	1750	5700	1750	1750	4630	968
Capacity Analysis Module:												
Vol/Sat:	0.15	0.16	0.16	0.06	0.10	0.04	0.06	0.10	0.07	0.17	0.38	0.38
Crit Moves:	****				****		****				****	
Green Time:	36.2	44.1	44.1	16.8	24.7	38.4	13.7	40.1	76.3	67.0	93.4	93.4
Volume/Cap:	0.73	0.67	0.67	0.67	0.73	0.17	0.73	0.47	0.17	0.47	0.73	0.73
Delay/Veh:	75.2	63.2	63.2	89.1	79.9	58.0	100.4	60.9	32.4	43.4	34.7	34.7
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:	75.2	63.2	63.2	89.1	79.9	58.0	100.4	60.9	32.4	43.4	34.7	34.7
LOS by Move:	E	E	E	F	E	E	F	E	C	D	C	C
HCM2kAvgQ:	16	16	16	7	11	3	7	9	5	13	31	31

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Background+Project (AM)

Intersection #3088: CAMDEN/UNION



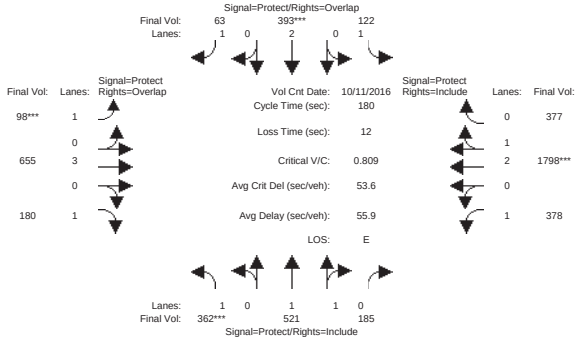
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 11 Oct 2016 <<												
Base Vol:	305	510	156	109	392	63	98	590	165	312	1765	369
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:	305	510	156	109	392	63	98	590	165	312	1765	369
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:	305	510	156	109	392	63	98	590	165	312	1765	369
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	305	510	156	109	392	63	98	590	165	312	1765	369
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:	305	510	156	109	392	63	98	590	165	312	1765	369
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.99	0.95
Lanes:	1.00	1.52	0.48	1.00	2.00	1.00	1.00	3.00	1.00	1.00	2.46	0.54
Final Sat.:	1750	2833	866	1750	3800	1750	1750	5700	1750	1750	4630	968
Capacity Analysis Module:												
Vol/Sat:	0.17	0.18	0.18	0.06	0.10	0.04	0.06	0.10	0.09	0.18	0.38	0.38
Crit Moves:	****				****		****				****	
Green Time:	41.0	48.5	48.5	16.8	24.3	37.4	13.2	37.8	78.7	65.0	89.6	89.6
Volume/Cap:	0.77	0.67	0.67	0.67	0.77	0.17	0.77	0.49	0.22	0.49	0.77	0.77
Delay/Veh:	73.6	60.4	60.4	89.2	82.0	58.8	105.6	63.0	31.6	45.3	38.0	38.0
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:	73.6	60.4	60.4	89.2	82.0	58.8	105.6	63.0	31.6	45.3	38.0	38.0
LOS by Move:	E	E	E	F	F	E	F	E	C	D	D	D
HCM2kAvgQ:	18	17	17	7	12	3	7	10	6	14	32	32

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Cumulative+Project (AM)

Intersection #3088: CAMDEN/UNION



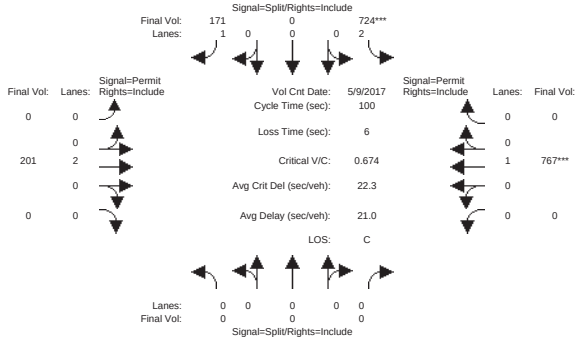
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 11 Oct 2016 <<												
Base Vol:	362	521	185	122	393	63	98	655	180	378	1798	377
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:	362	521	185	122	393	63	98	655	180	378	1798	377
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:	362	521	185	122	393	63	98	655	180	378	1798	377
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	362	521	185	122	393	63	98	655	180	378	1798	377
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:	362	521	185	122	393	63	98	655	180	378	1798	377
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.99	0.95
Lanes:	1.00	1.46	0.54	1.00	2.00	1.00	1.00	3.00	1.00	1.00	2.46	0.54
Final Sat.:	1750	2730	969	1750	3800	1750	1750	5700	1750	1750	4628	970
Capacity Analysis Module:												
Vol/Sat:	0.21	0.19	0.19	0.07	0.10	0.04	0.06	0.11	0.10	0.22	0.39	0.39
Crit Moves:	****				****		****				****	
Green Time:	46.0	50.6	50.6	18.5	23.0	35.5	12.5	34.4	80.4	64.6	86.5	86.5
Volume/Cap:	0.81	0.68	0.68	0.68	0.81	0.18	0.81	0.60	0.23	0.60	0.81	0.81
Delay/Veh:	73.4	59.3	59.3	87.9	86.1	60.4	114.4	67.5	30.9	48.8	41.7	41.7
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:	73.4	59.3	59.3	87.9	86.1	60.4	114.4	67.5	30.9	48.8	41.7	41.7
LOS by Move:	E	E	E	F	F	E	F	E	C	D	D	D
HCM2kAvgQ:	22	18	18	8	12	3	8	11	6	18	35	35

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3203: 85/SAMARITAN



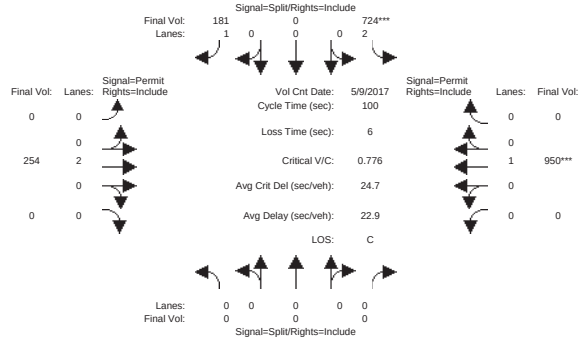
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	0	0	0	724	0	171	0	201	0	0	767	0
Growth Adj:	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:	0	0	0	724	0	171	0	201	0	0	767	0
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:	0	0	0	724	0	171	0	201	0	0	767	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	724	0	171	0	201	0	0	767	0
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:	0	0	0	724	0	171	0	201	0	0	767	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	0.00	0.00	1.00	0.00
Final Sat.:	0	0	0	3150	0	1750	0	3800	0	0	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.10	0.00	0.05	0.00	0.00	0.40	0.00
Crit Moves:				****							****	
Green Time:	0.0	0.0	0.0	34.1	0.0	34.1	0.0	59.9	0.0	0.0	59.9	0.0
Volume/Cap:	0.00	0.00	0.00	0.67	0.00	0.29	0.00	0.09	0.00	0.00	0.67	0.00
Delay/Veh:	0.0	0.0	0.0	29.9	0.0	24.3	0.0	8.5	0.0	0.0	15.1	0.0
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:	0.0	0.0	0.0	29.9	0.0	24.3	0.0	8.5	0.0	0.0	15.1	0.0
LOS by Move:	A	A	A	C	A	C	A	A	A	A	B	A
HCM2kAvgQ:	0	0	0	12	0	4	0	1	0	0	16	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3203: 85/SAMARITAN



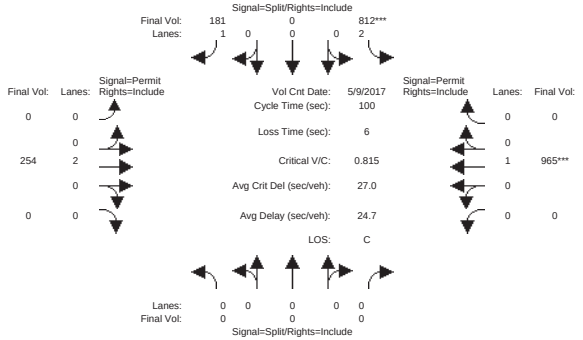
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	0	0	0	724	0	181	0	254	0	0	950	0
Growth Adj:	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:	0	0	0	724	0	181	0	254	0	0	950	0
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:	0	0	0	724	0	181	0	254	0	0	950	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	724	0	181	0	254	0	0	950	0
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:	0	0	0	724	0	181	0	254	0	0	950	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	0.00	0.00	1.00	0.00
Final Sat.:	0	0	0	3150	0	1750	0	3800	0	0	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.10	0.00	0.07	0.00	0.00	0.50	0.00
Crit Moves:				****							****	
Green Time:	0.0	0.0	0.0	29.6	0.0	29.6	0.0	64.4	0.0	0.0	64.4	0.0
Volume/Cap:	0.00	0.00	0.00	0.78	0.00	0.35	0.00	0.10	0.00	0.00	0.78	0.00
Delay/Veh:	0.0	0.0	0.0	36.3	0.0	28.0	0.0	6.8	0.0	0.0	15.9	0.0
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:	0.0	0.0	0.0	36.3	0.0	28.0	0.0	6.8	0.0	0.0	15.9	0.0
LOS by Move:	A	A	A	D	A	C	A	A	A	A	B	A
HCM2kAvgQ:	0	0	0	14	0	5	0	1	0	0	21	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Background+Project (AM)

Intersection #3203: 85/SAMARITAN



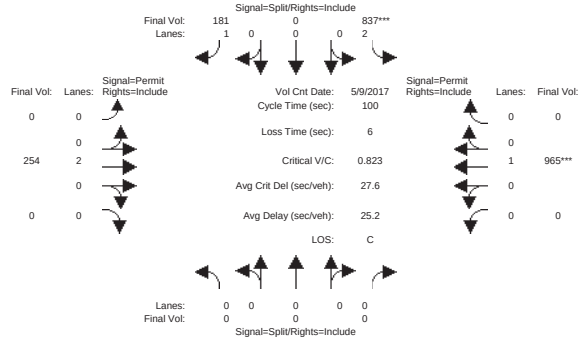
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	0	0	0	812	0	181	0	254	0	0	965	0
Growth Adj:	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:	0	0	0	812	0	181	0	254	0	0	965	0
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:	0	0	0	812	0	181	0	254	0	0	965	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	812	0	181	0	254	0	0	965	0
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:	0	0	0	812	0	181	0	254	0	0	965	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	0.00	0.00	1.00	0.00
Final Sat.:	0	0	0	3150	0	1750	0	3800	0	0	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.26	0.00	0.10	0.00	0.07	0.00	0.00	0.51	0.00
Crit Moves:				****							****	
Green Time:	0.0	0.0	0.0	31.6	0.0	31.6	0.0	62.4	0.0	0.0	62.4	0.0
Volume/Cap:	0.00	0.00	0.00	0.81	0.00	0.33	0.00	0.11	0.00	0.00	0.81	0.00
Delay/Veh:	0.0	0.0	0.0	36.7	0.0	26.4	0.0	7.6	0.0	0.0	18.9	0.0
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:	0.0	0.0	0.0	36.7	0.0	26.4	0.0	7.6	0.0	0.0	18.9	0.0
LOS by Move:	A	A	A	D	A	C	A	A	A	A	B	A
HCM2kAvgQ:	0	0	0	16	0	5	0	2	0	0	24	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Cumulative+Project (AM)

Intersection #3203: 85/SAMARITAN



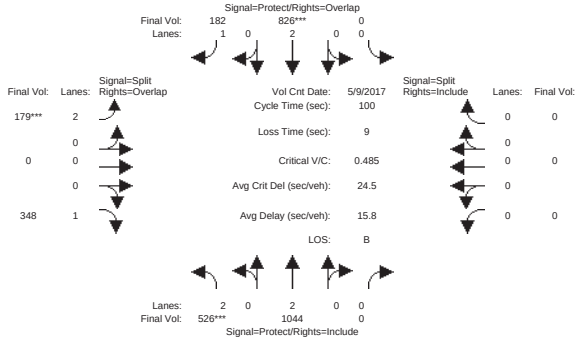
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	0	0	0	837	0	181	0	254	0	0	965	0
Growth Adj:	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:	0	0	0	837	0	181	0	254	0	0	965	0
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:	0	0	0	837	0	181	0	254	0	0	965	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	837	0	181	0	254	0	0	965	0
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:	0	0	0	837	0	181	0	254	0	0	965	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	0.00	0.00	1.00	0.00
Final Sat.:	0	0	0	3150	0	1750	0	3800	0	0	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.27	0.00	0.10	0.00	0.07	0.00	0.00	0.51	0.00
Crit Moves:				****							****	
Green Time:	0.0	0.0	0.0	32.3	0.0	32.3	0.0	61.7	0.0	0.0	61.7	0.0
Volume/Cap:	0.00	0.00	0.00	0.82	0.00	0.32	0.00	0.11	0.00	0.00	0.82	0.00
Delay/Veh:	0.0	0.0	0.0	36.7	0.0	25.9	0.0	7.9	0.0	0.0	19.7	0.0
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:	0.0	0.0	0.0	36.7	0.0	25.9	0.0	7.9	0.0	0.0	19.7	0.0
LOS by Move:	A	A	A	D	A	C	A	A	A	A	B	A
HCM2kAvgQ:	0	0	0	17	0	5	0	2	0	0	24	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3204: 85/UNION(N)



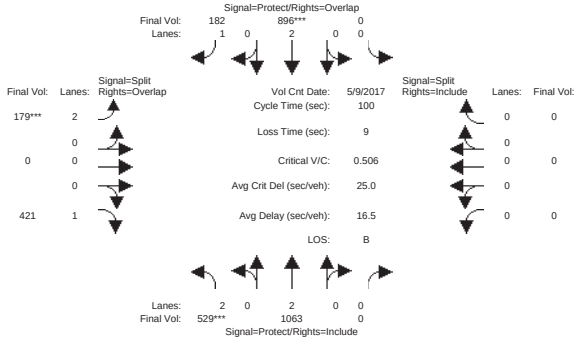
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	7	10	0	0	0	10	10	0	10	0	10	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<																
Base Vol:	526	1044	0	0	826	182	179	0	348	0	0	0				
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:	526	1044	0	0	826	182	179	0	348	0	0	0				
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:	526	1044	0	0	826	182	179	0	348	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	526	1044	0	0	826	182	179	0	348	0	0	0				
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:	526	1044	0	0	826	182	179	0	348	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92				
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	3150	3800	0	0	3800	1750	3150	0	1750	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.17	0.27	0.00	0.00	0.22	0.10	0.06	0.00	0.20	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green Time:	34.4	79.3	0.0	0.0	44.8	56.6	11.7	0.0	46.2	0.0	0.0	0.0				
Volume/Cap:	0.48	0.35	0.00	0.00	0.48	0.18	0.48	0.00	0.43	0.00	0.00	0.00				
Delay/Veh:	26.1	3.0	0.0	0.0	19.7	10.6	42.3	0.0	18.5	0.0	0.0	0.0				
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:	26.1	3.0	0.0	0.0	19.7	10.6	42.3	0.0	18.5	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	B	B	D	A	B	A	A	A				
HCM2kAvgQ:	7	5	0	0	9	3	4	0	8	0	0	0				

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3204: 85/UNION(N)



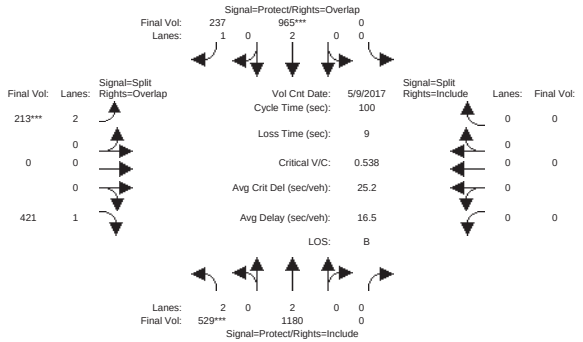
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	7	10	0	0	0	10	10	0	10	0	10	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<																
Base Vol:	529	1063	0	0	896	182	179	0	421	0	0	0				
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:	529	1063	0	0	896	182	179	0	421	0	0	0				
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:	529	1063	0	0	896	182	179	0	421	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	529	1063	0	0	896	182	179	0	421	0	0	0				
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:	529	1063	0	0	896	182	179	0	421	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92				
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	3150	3800	0	0	3800	1750	3150	0	1750	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.17	0.28	0.00	0.00	0.24	0.10	0.06	0.00	0.24	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green Time:	32.1	77.1	0.0	0.0	45.0	58.9	13.9	0.0	46.0	0.0	0.0	0.0				
Volume/Cap:	0.52	0.36	0.00	0.00	0.52	0.18	0.41	0.00	0.52	0.00	0.00	0.00				
Delay/Veh:	28.2	3.7	0.0	0.0	20.1	9.5	39.9	0.0	19.9	0.0	0.0	0.0				
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:	28.2	3.7	0.0	0.0	20.1	9.5	39.9	0.0	19.9	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	C	A	D	A	B	A	A	A				
HCM2kAvgQ:	8	5	0	0	9	3	3	0	10	0	0	0				

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Background+Project (AM)

Intersection #3204: 85/UNION(N)



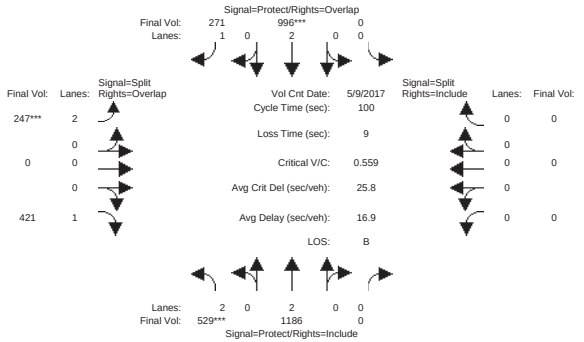
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	7	10	0		0	10	10		10	0	10		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Volume Module: >> Count Date: 9 May 2017 <<																
Base Vol:	529	1180	0		0	965	237		213	0	421		0	0	0	
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:	529	1180	0		0	965	237		213	0	421		0	0	0	
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:	529	1180	0		0	965	237		213	0	421		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	529	1180	0		0	965	237		213	0	421		0	0	0	
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:	529	1180	0		0	965	237		213	0	421		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.83	1.00	0.92		0.92	1.00	0.92		0.83	1.00	0.92		0.92	1.00	0.92	
Lanes:	2.00	2.00	0.00		0.00	2.00	1.00		2.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	3150	3800	0		0	3800	1750		3150	0	1750		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.31	0.00		0.00	0.25	0.14		0.07	0.00	0.24		0.00	0.00	0.00	
Crit Moves:	****					****			****							
Green Time:	30.9	77.6	0.0		0.0	46.7	60.1		13.4	0.0	44.3		0.0	0.0	0.0	
Volume/Cap:	0.54	0.40	0.00		0.00	0.54	0.23		0.51	0.00	0.54		0.00	0.00	0.00	
Delay/Veh:	29.3	3.7	0.0		0.0	19.4	9.3		41.2	0.0	21.2		0.0	0.0	0.0	
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:	29.3	3.7	0.0		0.0	19.4	9.3		41.2	0.0	21.2		0.0	0.0	0.0	
LOS by Move:	C	A	A		A	B	A		D	A	C		A	A	A	
HCM2kAvgQ:	8	6	0		0	10	3		4	0	10		0	0	0	

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Cumulative+Project (AM)

Intersection #3204: 85/UNION(N)



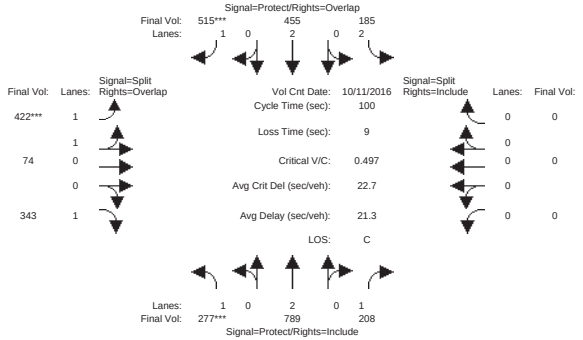
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	7	10	0		0	10	10		10	0	10		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Volume Module: >> Count Date: 9 May 2017 <<																
Base Vol:	529	1186	0		0	996	271		247	0	421		0	0	0	
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:	529	1186	0		0	996	271		247	0	421		0	0	0	
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:	529	1186	0		0	996	271		247	0	421		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	529	1186	0		0	996	271		247	0	421		0	0	0	
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:	529	1186	0		0	996	271		247	0	421		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.83	1.00	0.92		0.92	1.00	0.92		0.83	1.00	0.92		0.92	1.00	0.92	
Lanes:	2.00	2.00	0.00		0.00	2.00	1.00		2.00	0.00	1.00		0.00	0.00	0.00	
Final Sat.:	3150	3800	0		0	3800	1750		3150	0	1750		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.17	0.31	0.00		0.00	0.26	0.15		0.08	0.00	0.24		0.00	0.00	0.00	
Crit Moves:	****					****			****							
Green Time:	30.1	77.0	0.0		0.0	46.9	60.9		14.0	0.0	44.1		0.0	0.0	0.0	
Volume/Cap:	0.56	0.41	0.00		0.00	0.56	0.25		0.56	0.00	0.55		0.00	0.00	0.00	
Delay/Veh:	30.2	3.9	0.0		0.0	19.5	9.2		41.7	0.0	21.4		0.0	0.0	0.0	
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:	30.2	3.9	0.0		0.0	19.5	9.2		41.7	0.0	21.4		0.0	0.0	0.0	
LOS by Move:	C	A	A		A	B	A		D	A	C		A	A	A	
HCM2kAvgQ:	8	6	0		0	10	4		5	0	11		0	0	0	

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3205: 85/UNION(S)



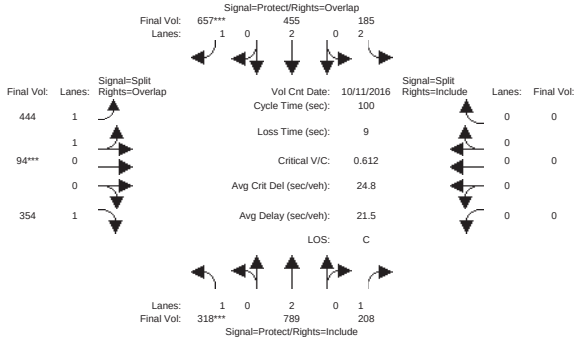
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 11 Oct 2016 <<												
Base Vol:	277	789	208	185	455	515	422	74	343	0	0	0
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:	277	789	208	185	455	515	422	74	343	0	0	0
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:	277	789	208	185	455	515	422	74	343	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	277	789	208	185	455	515	422	74	343	0	0	0
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:	277	789	208	185	455	515	422	74	343	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.95	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.71	0.29	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3020	530	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.16	0.21	0.12	0.06	0.12	0.29	0.14	0.14	0.20	0.00	0.00	0.00
Crit Moves:	****					****	****					
Green Time:	31.8	47.0	47.0	15.9	31.1	59.2	28.1	28.1	59.9	0.0	0.0	0.0
Volume/Cap:	0.50	0.44	0.25	0.37	0.39	0.50	0.50	0.50	0.33	0.00	0.00	0.00
Delay/Veh:	28.3	17.9	16.1	38.1	27.2	12.2	30.4	30.4	10.2	0.0	0.0	0.0
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:	28.3	17.9	16.1	38.1	27.2	12.2	30.4	30.4	10.2	0.0	0.0	0.0
LOS by Move:	C	B	B	D	C	B	C	C	B	A	A	A
HCM2kAvgQ:	8	8	4	3	5	10	7	7	6	0	0	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3205: 85/UNION(S)



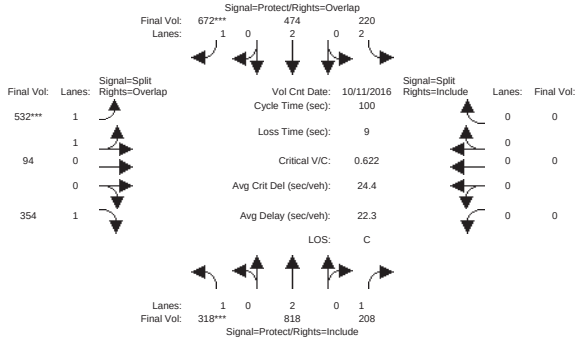
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 11 Oct 2016 <<												
Base Vol:	318	789	208	185	455	657	444	94	354	0	0	0
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:	318	789	208	185	455	657	444	94	354	0	0	0
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:	318	789	208	185	455	657	444	94	354	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	318	789	208	185	455	657	444	94	354	0	0	0
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:	318	789	208	185	455	657	444	94	354	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.95	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.66	0.34	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	1750	3150	3800	1750	2930	620	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.18	0.21	0.12	0.06	0.12	0.38	0.15	0.15	0.20	0.00	0.00	0.00
Crit Moves:	****					****		****				
Green Time:	29.7	49.5	49.5	16.7	36.6	61.3	24.8	24.8	54.4	0.0	0.0	0.0
Volume/Cap:	0.61	0.42	0.24	0.35	0.33	0.61	0.61	0.61	0.37	0.00	0.00	0.00
Delay/Veh:	32.4	16.2	14.6	37.3	23.0	13.0	34.6	34.6	13.3	0.0	0.0	0.0
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:	32.4	16.2	14.6	37.3	23.0	13.0	34.6	34.6	13.3	0.0	0.0	0.0
LOS by Move:	C	B	B	D	C	B	C	C	B	A	A	A
HCM2kAvgQ:	10	8	4	3	5	13	8	8	7	0	0	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Background+Project (AM)

Intersection #3205: 85/UNION(S)



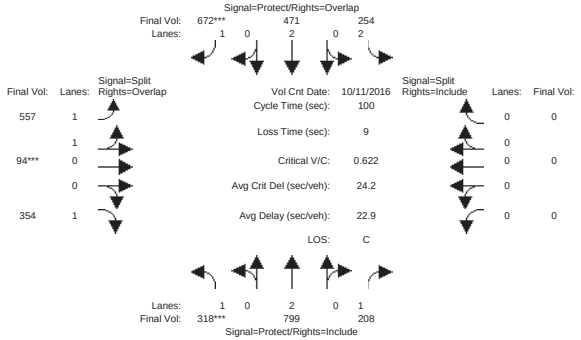
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 11 Oct 2016 <<												
Base Vol:	318	818	208	220	474	672	532	94	354	0	0	0
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:	318	818	208	220	474	672	532	94	354	0	0	0
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:	318	818	208	220	474	672	532	94	354	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	318	818	208	220	474	672	532	94	354	0	0	0
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:	318	818	208	220	474	672	532	94	354	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.95	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.70	0.30	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3017	533	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.18	0.22	0.12	0.07	0.12	0.38	0.18	0.18	0.20	0.00	0.00	0.00
Crit Moves:	****					****	****					
Green Time:	29.2	47.3	47.3	15.4	33.4	61.8	28.4	28.4	57.6	0.0	0.0	0.0
Volume/Cap:	0.62	0.46	0.25	0.45	0.37	0.62	0.62	0.62	0.35	0.00	0.00	0.00
Delay/Veh:	33.0	17.9	15.9	39.2	25.5	13.0	32.4	32.4	11.5	0.0	0.0	0.0
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:	33.0	17.9	15.9	39.2	25.5	13.0	32.4	32.4	11.5	0.0	0.0	0.0
LOS by Move:	C	B	B	D	C	B	C	C	B	A	A	A
HCM2kAvgQ:	10	8	4	4	5	14	9	9	6	0	0	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Cumulative+Project (AM)

Intersection #3205: 85/UNION(S)



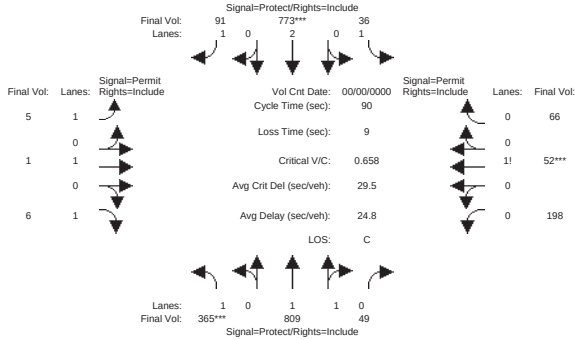
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 11 Oct 2016 <<												
Base Vol:	318	799	208	254	471	672	557	94	354	0	0	0
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:	318	799	208	254	471	672	557	94	354	0	0	0
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:	318	799	208	254	471	672	557	94	354	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	318	799	208	254	471	672	557	94	354	0	0	0
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:	318	799	208	254	471	672	557	94	354	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.95	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.72	0.28	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3037	513	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.18	0.21	0.12	0.08	0.12	0.38	0.18	0.18	0.20	0.00	0.00	0.00
Crit Moves:	****					****		****				
Green Time:	29.2	44.5	44.5	17.0	32.3	61.8	29.5	29.5	58.7	0.0	0.0	0.0
Volume/Cap:	0.62	0.47	0.27	0.47	0.38	0.62	0.62	0.62	0.34	0.00	0.00	0.00
Delay/Veh:	33.0	19.7	17.7	38.1	26.4	13.0	31.6	31.6	10.9	0.0	0.0	0.0
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:	33.0	19.7	17.7	38.1	26.4	13.0	31.6	31.6	10.9	0.0	0.0	0.0
LOS by Move:	C	B	B	D	C	B	C	C	B	A	A	A
HCM2kAvgQ:	10	9	4	4	5	14	9	9	6	0	0	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3410: COLE/UNION



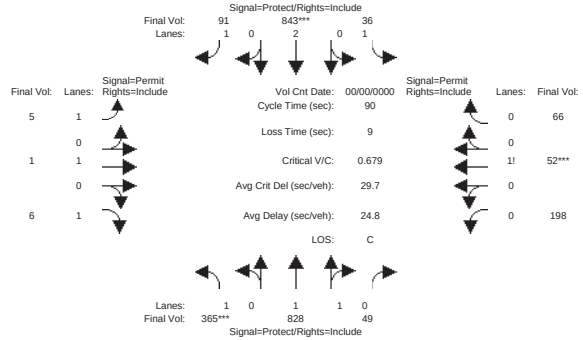
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 0 0 <<												
Base Vol:	365	809	49	36	773	91	5	1	6	198	52	66
Growth Adj:	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:	365	809	49	36	773	91	5	1	6	198	52	66
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:	365	809	49	36	773	91	5	1	6	198	52	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	365	809	49	36	773	91	5	1	6	198	52	66
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:	365	809	49	36	773	91	5	1	6	198	52	66
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.88	0.12	1.00	2.00	1.00	1.00	1.00	1.00	0.63	0.16	0.21
Final Sat.:	1750	3489	211	1750	3800	1750	1750	1900	1750	1097	288	366
Capacity Analysis Module:												
Vol/Sat:	0.21	0.23	0.23	0.02	0.20	0.05	0.00	0.00	0.00	0.18	0.18	0.18
Crit Moves:	****				****						****	
Green Time:	28.5	42.2	42.2	14.1	27.8	27.8	24.7	24.7	24.7	24.7	24.7	24.7
Volume/Cap:	0.66	0.49	0.49	0.13	0.66	0.17	0.01	0.00	0.01	0.66	0.66	0.66
Delay/Veh:	29.4	16.8	16.8	32.9	28.4	22.8	23.8	23.7	23.8	32.3	32.3	32.3
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:	29.4	16.8	16.8	32.9	28.4	22.8	23.8	23.7	23.8	32.3	32.3	32.3
LOS by Move:	C	B	B	C	C	C	C	C	C	C	C	C
HCM2kAvgQ:	9	8	8	1	10	2	0	0	0	9	9	9

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3410: COLE/UNION



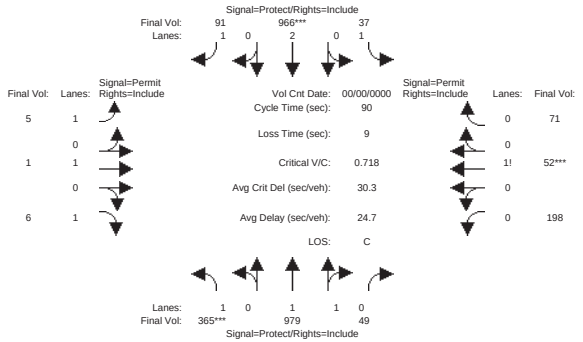
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 0 0 <<												
Base Vol:	365	828	49	36	843	91	5	1	6	198	52	66
Growth Adj:	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:	365	828	49	36	843	91	5	1	6	198	52	66
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:	365	828	49	36	843	91	5	1	6	198	52	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	365	828	49	36	843	91	5	1	6	198	52	66
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:	365	828	49	36	843	91	5	1	6	198	52	66
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.89	0.11	1.00	2.00	1.00	1.00	1.00	1.00	0.63	0.16	0.21
Final Sat.:	1750	3493	207	1750	3800	1750	1750	1900	1750	1097	288	366
Capacity Analysis Module:												
Vol/Sat:	0.21	0.24	0.24	0.02	0.22	0.05	0.00	0.00	0.00	0.18	0.18	0.18
Crit Moves:	****				****						****	
Green Time:	27.7	43.0	43.0	14.1	29.4	29.4	23.9	23.9	23.9	23.9	23.9	23.9
Volume/Cap:	0.68	0.50	0.50	0.13	0.68	0.16	0.01	0.00	0.01	0.68	0.68	0.68
Delay/Veh:	30.8	16.3	16.3	32.9	27.7	21.6	24.3	24.3	24.3	33.6	33.6	33.6
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:	30.8	16.3	16.3	32.9	27.7	21.6	24.3	24.3	24.3	33.6	33.6	33.6
LOS by Move:	C	B	B	C	C	C	C	C	C	C	C	C
HCM2kAvgQ:	10	8	8	1	11	2	0	0	0	10	10	10

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Background+Project (AM)

Intersection #3410: COLE/UNION



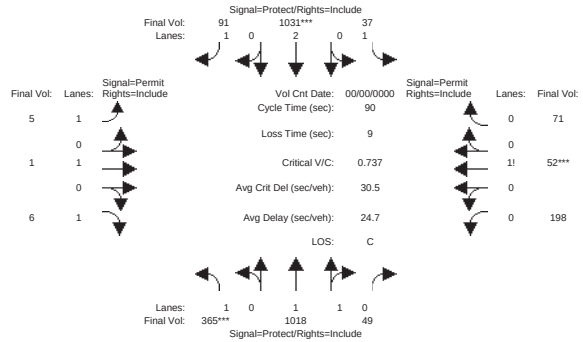
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 0 0 <<												
Base Vol:	365	979	49	37	966	91	5	1	6	198	52	71
Growth Adj:	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:	365	979	49	37	966	91	5	1	6	198	52	71
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:	365	979	49	37	966	91	5	1	6	198	52	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	365	979	49	37	966	91	5	1	6	198	52	71
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:	365	979	49	37	966	91	5	1	6	198	52	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.90	0.10	1.00	2.00	1.00	1.00	1.00	1.00	0.62	0.16	0.22
Final Sat.:	1750	3524	176	1750	3800	1750	1750	1900	1750	1079	283	387
Capacity Analysis Module:												
Vol/Sat:	0.21	0.28	0.28	0.02	0.25	0.05	0.00	0.00	0.00	0.18	0.18	0.18
Crit Moves:	****				****						****	
Green Time:	26.1	45.3	45.3	12.7	31.9	31.9	23.0	23.0	23.0	23.0	23.0	23.0
Volume/Cap:	0.72	0.55	0.55	0.15	0.72	0.15	0.01	0.00	0.01	0.72	0.72	0.72
Delay/Veh:	33.5	15.7	15.7	34.2	27.1	19.9	25.0	25.0	25.0	36.1	36.1	36.1
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:	33.5	15.7	15.7	34.2	27.1	19.9	25.0	25.0	25.0	36.1	36.1	36.1
LOS by Move:	C	B	B	C	C	B	C	C	C	D	D	D
HCM2kAvgQ:	10	10	10	1	13	2	0	0	0	10	10	10

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Cumulative+Project (AM)

Intersection #3410: COLE/UNION



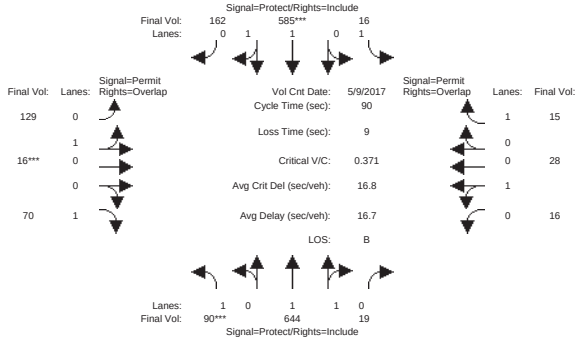
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 0 0 <<												
Base Vol:	365	1018	49	37	1031	91	5	1	6	198	52	71
Growth 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:	365	1018	49	37	1031	91	5	1	6	198	52	71
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:	365	1018	49	37	1031	91	5	1	6	198	52	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	365	1018	49	37	1031	91	5	1	6	198	52	71
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:	365	1018	49	37	1031	91	5	1	6	198	52	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.91	0.09	1.00	2.00	1.00	1.00	1.00	1.00	0.62	0.16	0.22
Final Sat.:	1750	3530	170	1750	3800	1750	1750	1900	1750	1079	283	387
Capacity Analysis Module:												
Vol/Sat:	0.21	0.29	0.29	0.02	0.27	0.05	0.00	0.00	0.00	0.18	0.18	0.18
Crit Moves:	****				****						****	
Green Time:	25.5	46.2	46.2	12.4	33.1	33.1	22.4	22.4	22.4	22.4	22.4	22.4
Volume/Cap:	0.74	0.56	0.56	0.15	0.74	0.14	0.01	0.00	0.01	0.74	0.74	0.74
Delay/Veh:	35.0	15.4	15.4	34.4	26.8	19.1	25.5	25.4	25.5	37.6	37.6	37.6
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:	35.0	15.4	15.4	34.4	26.8	19.1	25.5	25.4	25.5	37.6	37.6	37.6
LOS by Move:	C	B	B	C	C	B	C	C	C	D	D	D
HCM2kAvgQ:	10	10	10	1	14	2	0	0	0	10	10	10

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3833: UNION/WOODARD



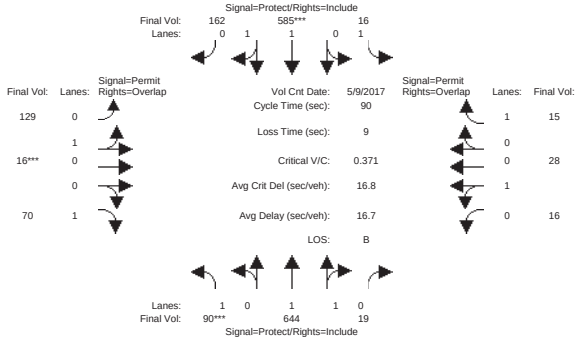
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	90	644	19	16	585	162	129	16	70	16	28	15
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:	90	644	19	16	585	162	129	16	70	16	28	15
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:	90	644	19	16	585	162	129	16	70	16	28	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	644	19	16	585	162	129	16	70	16	28	15
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:	90	644	19	16	585	162	129	16	70	16	28	15
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.94	0.06	1.00	1.55	0.45	0.89	0.11	1.00	0.36	0.64	1.00
Final Sat.:	1750	3594	106	1750	2897	802	1601	199	1750	655	1145	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.18	0.18	0.01	0.20	0.20	0.08	0.08	0.04	0.02	0.02	0.01
Crit Moves:	****				****			****				
Green Time:	12.5	42.9	42.9	18.6	49.0	49.0	19.5	19.5	32.0	19.5	19.5	38.1
Volume/Cap:	0.37	0.38	0.38	0.04	0.37	0.37	0.37	0.37	0.11	0.11	0.11	0.02
Delay/Veh:	36.2	15.2	15.2	28.6	11.8	11.8	30.6	30.6	19.5	28.4	28.4	15.1
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:	36.2	15.2	15.2	28.6	11.8	11.8	30.6	30.6	19.5	28.4	28.4	15.1
LOS by Move:	D	B	B	C	B	B	C	C	B	C	C	B
HCM2kAvgQ:	2	6	6	0	6	6	4	4	1	1	1	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3833: UNION/WOODARD



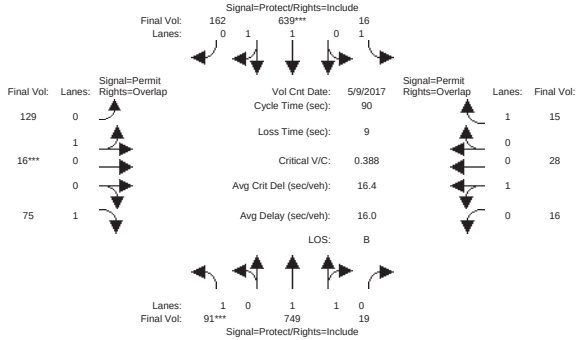
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	90	644	19	16	585	162	129	16	70	16	28	15
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:	90	644	19	16	585	162	129	16	70	16	28	15
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:	90	644	19	16	585	162	129	16	70	16	28	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	644	19	16	585	162	129	16	70	16	28	15
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:	90	644	19	16	585	162	129	16	70	16	28	15
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.94	0.06	1.00	1.55	0.45	0.89	0.11	1.00	0.36	0.64	1.00
Final Sat.:	1750	3594	106	1750	2897	802	1601	199	1750	655	1145	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.18	0.18	0.01	0.20	0.20	0.08	0.08	0.04	0.02	0.02	0.01
Crit Moves:	****				****			****				
Green Time:	12.5	42.9	42.9	18.6	49.0	49.0	19.5	19.5	32.0	19.5	19.5	38.1
Volume/Cap:	0.37	0.38	0.38	0.04	0.37	0.37	0.37	0.37	0.11	0.11	0.11	0.02
Delay/Veh:	36.2	15.2	15.2	28.6	11.8	11.8	30.6	30.6	19.5	28.4	28.4	15.1
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:	36.2	15.2	15.2	28.6	11.8	11.8	30.6	30.6	19.5	28.4	28.4	15.1
LOS by Move:	D	B	B	C	B	B	C	C	B	C	C	B
HCM2kAvgQ:	2	6	6	0	6	6	4	4	1	1	1	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Background+Project (AM)

Intersection #3833: UNION/WOODARD



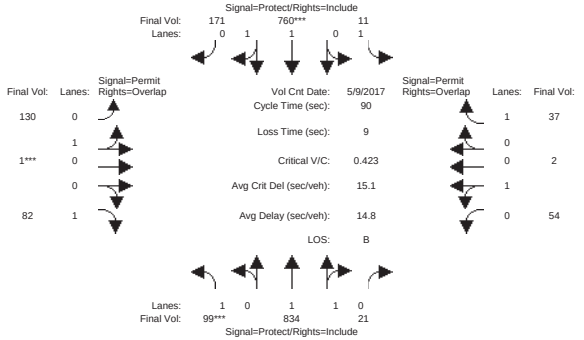
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	91	749	19	16	639	162	129	16	75	16	28	15
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:	91	749	19	16	639	162	129	16	75	16	28	15
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:	91	749	19	16	639	162	129	16	75	16	28	15
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	749	19	16	639	162	129	16	75	16	28	15
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:	91	749	19	16	639	162	129	16	75	16	28	15
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.95	0.05	1.00	1.58	0.42	0.89	0.11	1.00	0.36	0.64	1.00
Final Sat.:	1750	3608	92	1750	2951	748	1601	199	1750	655	1145	1750
Capacity Analysis Module:												
Vol/Sat:	0.05	0.21	0.21	0.01	0.22	0.22	0.08	0.08	0.04	0.02	0.02	0.01
Crit Moves:	****				****			****				
Green Time:	12.1	45.3	45.3	17.0	50.2	50.2	18.7	18.7	30.8	18.7	18.7	35.7
Volume/Cap:	0.39	0.41	0.41	0.05	0.39	0.39	0.39	0.39	0.13	0.12	0.12	0.02
Delay/Veh:	36.7	14.1	14.1	30.0	11.3	11.3	31.4	31.4	20.5	29.1	29.1	16.5
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:	36.7	14.1	14.1	30.0	11.3	11.3	31.4	31.4	20.5	29.1	29.1	16.5
LOS by Move:	D	B	B	C	B	B	C	C	C	C	C	B
HCM2kAvgQ:	2	7	7	0	6	6	4	4	2	1	1	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Base Volume Alternative)
Cumulative+Project (AM)

Intersection #3833: UNION/WOODARD



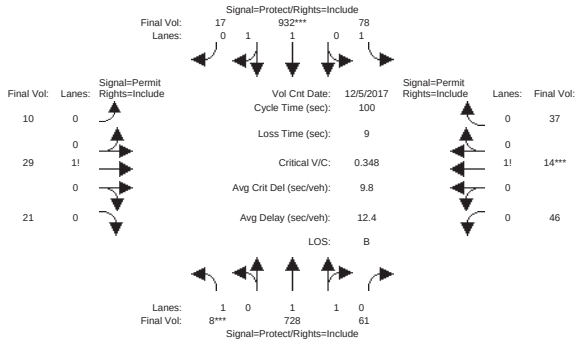
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	99	834	21	11	760	171	130	1	82	54	2	37
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:	99	834	21	11	760	171	130	1	82	54	2	37
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:	99	834	21	11	760	171	130	1	82	54	2	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	834	21	11	760	171	130	1	82	54	2	37
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:	99	834	21	11	760	171	130	1	82	54	2	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.95	0.05	1.00	1.62	0.38	0.99	0.01	1.00	0.96	0.04	1.00
Final Sat.:	1750	3609	91	1750	3020	679	1786	14	1750	1736	64	1750
Capacity Analysis Module:												
Vol/Sat:	0.06	0.23	0.23	0.01	0.25	0.25	0.07	0.07	0.05	0.03	0.03	0.02
Crit Moves:	****				****			****				
Green Time:	12.0	49.0	49.0	16.5	53.5	53.5	15.5	15.5	27.5	15.5	15.5	32.0
Volume/Cap:	0.42	0.42	0.42	0.03	0.42	0.42	0.42	0.42	0.15	0.18	0.18	0.06
Delay/Veh:	37.0	12.3	12.3	30.2	10.0	10.0	34.2	34.2	22.9	32.1	32.1	19.2
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:	37.0	12.3	12.3	30.2	10.0	10.0	34.2	34.2	22.9	32.1	32.1	19.2
LOS by Move:	D	B	B	C	B	B	C	C	C	C	C	B
HCM2kAvgQ:	3	7	7	0	7	7	4	4	2	1	1	1

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #987: CHARMERAN/UNION



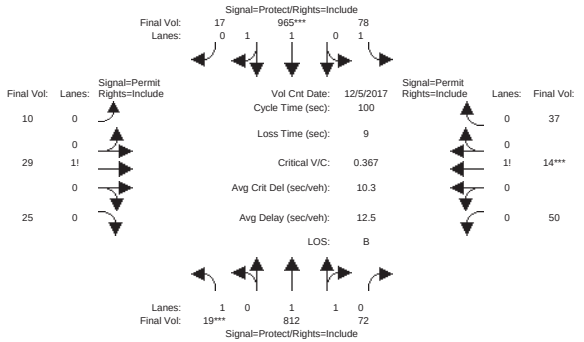
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 5 Dec 2017 <<												
Base Vol:	8	728	61	78	932	17	10	29	21	46	14	37
Growth 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:	8	728	61	78	932	17	10	29	21	46	14	37
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	728	61	78	932	17	10	29	21	46	14	37
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:	8	728	61	78	932	17	10	29	21	46	14	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	728	61	78	932	17	10	29	21	46	14	37
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:	8	728	61	78	932	17	10	29	21	46	14	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.97	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	1.84	0.16	1.00	1.96	0.04	0.17	0.48	0.35	0.48	0.14	0.38
Final Sat.:	1750	3414	286	1750	3634	66	292	846	613	830	253	668
Capacity Analysis Module:												
Vol/Sat:	0.00	0.21	0.21	0.04	0.26	0.26	0.03	0.03	0.03	0.06	0.06	0.06
Crit Moves:	****				****						****	
Green Time:	7.0	57.3	57.3	18.8	69.1	69.1	14.9	14.9	14.9	14.9	14.9	14.9
Volume/Cap:	0.07	0.37	0.37	0.24	0.37	0.37	0.23	0.23	0.23	0.37	0.37	0.37
Delay/Veh:	43.7	11.7	11.7	34.9	6.5	6.5	37.9	37.9	37.9	39.2	39.2	39.2
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:	43.7	11.7	11.7	34.9	6.5	6.5	37.9	37.9	37.9	39.2	39.2	39.2
LOS by Move:	D	B	B	C	A	A	D	D	D	D	D	D
HCM2kAvgQ:	0	7	7	2	6	6	2	2	2	3	3	3

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #987: CHARMERAN/UNION



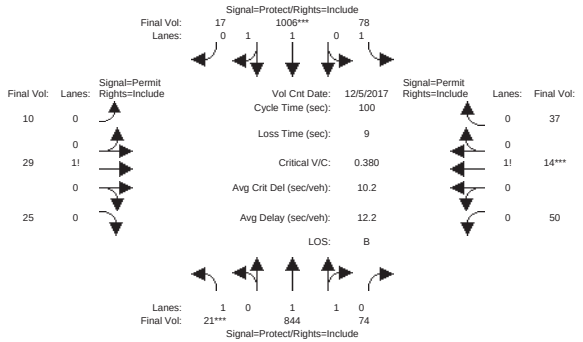
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 5 Dec 2017 <<												
Base Vol:	19	812	72	78	965	17	10	29	25	50	14	37
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	812	72	78	965	17	10	29	25	50	14	37
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	812	72	78	965	17	10	29	25	50	14	37
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:	19	812	72	78	965	17	10	29	25	50	14	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	812	72	78	965	17	10	29	25	50	14	37
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:	19	812	72	78	965	17	10	29	25	50	14	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.97	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	1.83	0.17	1.00	1.96	0.04	0.16	0.45	0.39	0.49	0.14	0.37
Final Sat.:	1750	3398	301	1750	3636	64	273	793	684	866	243	641
Capacity Analysis Module:												
Vol/Sat:	0.01	0.24	0.24	0.04	0.27	0.27	0.04	0.04	0.04	0.06	0.06	0.06
Crit Moves:	****				****						****	
Green Time:	7.0	58.8	58.8	17.2	69.0	69.0	15.0	15.0	15.0	15.0	15.0	15.0
Volume/Cap:	0.16	0.41	0.41	0.26	0.38	0.38	0.24	0.24	0.24	0.38	0.38	0.38
Delay/Veh:	44.3	11.3	11.3	36.3	6.6	6.6	38.0	38.0	38.0	39.3	39.3	39.3
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:	44.3	11.3	11.3	36.3	6.6	6.6	38.0	38.0	38.0	39.3	39.3	39.3
LOS by Move:	D	B	B	D	A	A	D	D	D	D	D	D
HCM2kAvgQ:	1	7	7	2	6	6	2	2	2	3	3	3

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #987: CHARMERAN/UNION



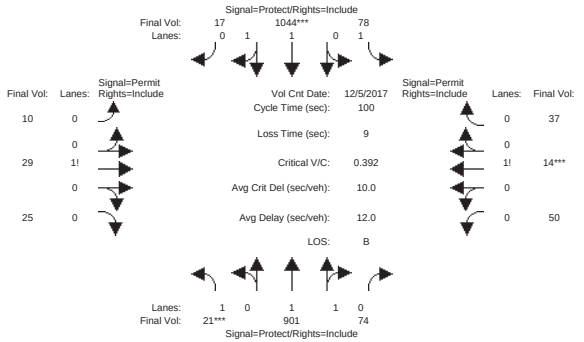
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 5 Dec 2017 <<												
Base Vol:	21	844	74	78	1006	17	10	29	25	50	14	37
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:	21	844	74	78	1006	17	10	29	25	50	14	37
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	844	74	78	1006	17	10	29	25	50	14	37
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:	21	844	74	78	1006	17	10	29	25	50	14	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	844	74	78	1006	17	10	29	25	50	14	37
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:	21	844	74	78	1006	17	10	29	25	50	14	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.97	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	1.83	0.17	1.00	1.97	0.03	0.16	0.45	0.39	0.49	0.14	0.37
Final Sat.:	1750	3402	298	1750	3638	61	273	793	684	866	243	641
Capacity Analysis Module:												
Vol/Sat:	0.01	0.25	0.25	0.04	0.28	0.28	0.04	0.04	0.04	0.06	0.06	0.06
Crit Moves:	****				****						****	
Green Time:	7.0	59.7	59.7	16.8	69.5	69.5	14.5	14.5	14.5	14.5	14.5	14.5
Volume/Cap:	0.17	0.42	0.42	0.26	0.40	0.40	0.25	0.25	0.25	0.40	0.40	0.40
Delay/Veh:	44.4	10.9	10.9	36.7	6.5	6.5	38.5	38.5	38.5	39.8	39.8	39.8
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:	44.4	10.9	10.9	36.7	6.5	6.5	38.5	38.5	38.5	39.8	39.8	39.8
LOS by Move:	D	B	B	D	A	A	D	D	D	D	D	D
HCM2kAvgQ:	1	8	8	2	7	7	2	2	2	3	3	3

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project (PM)

Intersection #987: CHARMERAN/UNION



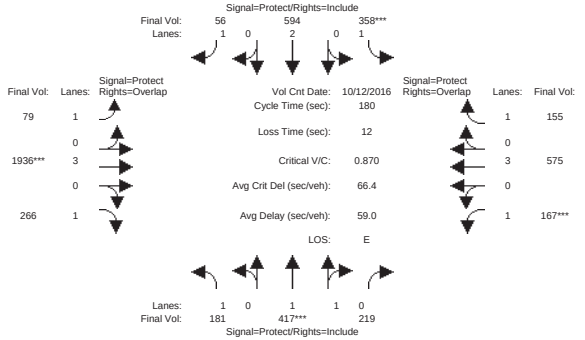
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 5 Dec 2017 <<												
Base Vol:	21	901	74	78	1044	17	10	29	25	50	14	37
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:	21	901	74	78	1044	17	10	29	25	50	14	37
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	21	901	74	78	1044	17	10	29	25	50	14	37
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:	21	901	74	78	1044	17	10	29	25	50	14	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	21	901	74	78	1044	17	10	29	25	50	14	37
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:	21	901	74	78	1044	17	10	29	25	50	14	37
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.97	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	1.84	0.16	1.00	1.97	0.03	0.16	0.45	0.39	0.49	0.14	0.37
Final Sat.:	1750	3419	281	1750	3641	59	273	793	684	866	243	641
Capacity Analysis Module:												
Vol/Sat:	0.01	0.26	0.26	0.04	0.29	0.29	0.04	0.04	0.04	0.06	0.06	0.06
Crit Moves:	****				****						****	
Green Time:	7.0	60.8	60.8	16.1	69.9	69.9	14.1	14.1	14.1	14.1	14.1	14.1
Volume/Cap:	0.17	0.43	0.43	0.28	0.41	0.41	0.26	0.26	0.26	0.41	0.41	0.41
Delay/Veh:	44.4	10.6	10.6	37.3	6.4	6.4	38.9	38.9	38.9	40.3	40.3	40.3
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:	44.4	10.6	10.6	37.3	6.4	6.4	38.9	38.9	38.9	40.3	40.3	40.3
LOS by Move:	D	B	B	D	A	A	D	D	D	D	D	D
HCM2kAvgQ:	1	8	8	2	7	7	2	2	2	3	3	3

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3088: CAMDEN/UNION



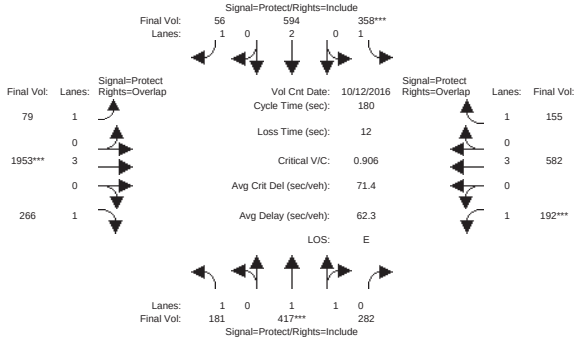
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume Module: >> Count Date: 12 Oct 2016 <<												
Base Vol:	181	417	219	358	594	56	79	1936	266	167	575	155
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:	181	417	219	358	594	56	79	1936	266	167	575	155
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	181	417	219	358	594	56	79	1936	266	167	575	155
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:	181	417	219	358	594	56	79	1936	266	167	575	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	181	417	219	358	594	56	79	1936	266	167	575	155
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:	181	417	219	358	594	56	79	1936	266	167	575	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.29	0.71	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	2425	1274	1750	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.17	0.17	0.20	0.16	0.03	0.05	0.34	0.15	0.10	0.10	0.09
Crit Moves:		****		****				****		****		
Green Time:	31.0	35.6	35.6	42.3	46.9	46.9	27.8	70.3	101.3	19.8	62.2	104.6
Volume/Cap:	0.60	0.87	0.87	0.87	0.60	0.12	0.29	0.87	0.27	0.87	0.29	0.15
Delay/Veh:	72.1	80.9	80.9	83.9	59.4	51.0	68.0	54.6	20.4	110.9	42.9	17.4
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:	72.1	80.9	80.9	83.9	59.4	51.0	68.0	54.6	20.4	110.9	42.9	17.4
LOS by Move:	E	F	F	F	E	D	E	D	C	F	D	B
HCM2kAvgQ:	10	20	20	23	14	2	4	35	8	12	7	4

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3088: CAMDEN/UNION



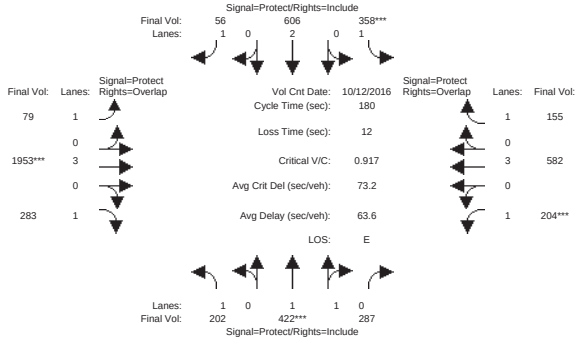
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume Module: >> Count Date: 12 Oct 2016 <<												
Base Vol:	181	417	282	358	594	56	79	1953	266	192	582	155
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:	181	417	282	358	594	56	79	1953	266	192	582	155
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	181	417	282	358	594	56	79	1953	266	192	582	155
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:	181	417	282	358	594	56	79	1953	266	192	582	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	181	417	282	358	594	56	79	1953	266	192	582	155
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:	181	417	282	358	594	56	79	1953	266	192	582	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.17	0.83	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	2206	1492	1750	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.10	0.19	0.19	0.20	0.16	0.03	0.05	0.34	0.15	0.11	0.10	0.09
Crit Moves:		****		****				****		****		
Green Time:	31.1	37.5	37.5	40.6	47.0	47.0	27.5	68.0	99.2	21.8	62.3	102.9
Volume/Cap:	0.60	0.91	0.91	0.91	0.60	0.12	0.30	0.91	0.28	0.91	0.30	0.15
Delay/Veh:	71.9	83.8	83.8	91.8	59.2	50.9	68.2	59.0	21.6	115.3	42.9	18.2
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:	71.9	83.8	83.8	91.8	59.2	50.9	68.2	59.0	21.6	115.3	42.9	18.2
LOS by Move:	E	F	F	F	E	D	E	E	C	F	D	B
HCM2kAvgQ:	10	22	22	24	14	2	4	37	8	14	7	4

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3088: CAMDEN/UNION



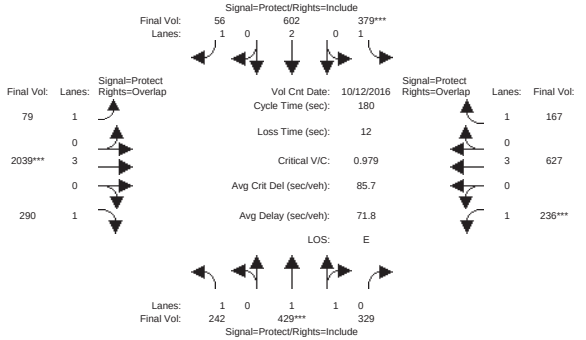
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume Module: >> Count Date: 12 Oct 2016 <<												
Base Vol:	202	422	287	358	606	56	79	1953	283	204	582	155
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:	202	422	287	358	606	56	79	1953	283	204	582	155
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	202	422	287	358	606	56	79	1953	283	204	582	155
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:	202	422	287	358	606	56	79	1953	283	204	582	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	202	422	287	358	606	56	79	1953	283	204	582	155
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:	202	422	287	358	606	56	79	1953	283	204	582	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.17	0.83	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	2201	1497	1750	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.12	0.19	0.19	0.20	0.16	0.03	0.05	0.34	0.16	0.12	0.10	0.09
Crit Moves:		****		****				****		****		
Green Time:	32.7	37.6	37.6	40.2	45.1	45.1	27.6	67.3	100.0	22.9	62.5	102.7
Volume/Cap:	0.64	0.92	0.92	0.92	0.64	0.13	0.29	0.92	0.29	0.92	0.29	0.16
Delay/Veh:	72.4	85.3	85.3	94.2	61.5	52.3	68.1	60.5	21.4	115.8	42.8	18.3
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:	72.4	85.3	85.3	94.2	61.5	52.3	68.1	60.5	21.4	115.8	42.8	18.3
LOS by Move:	E	F	F	F	E	D	E	E	C	F	D	B
HCM2kAvgQ:	12	23	23	24	15	2	4	37	9	15	7	4

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project (PM)

Intersection #3088: CAMDEN/UNION



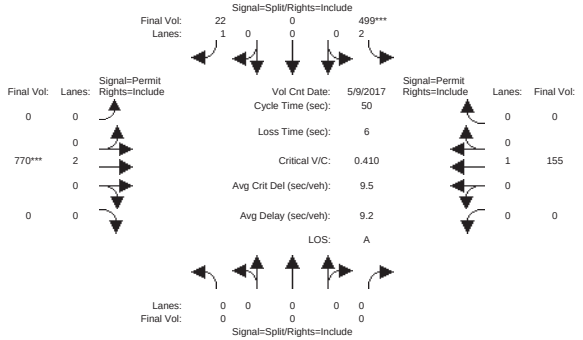
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume Module: >> Count Date: 12 Oct 2016 <<												
Base Vol:	242	429	329	379	602	56	79	2039	290	236	627	167
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:	242	429	329	379	602	56	79	2039	290	236	627	167
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	242	429	329	379	602	56	79	2039	290	236	627	167
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:	242	429	329	379	602	56	79	2039	290	236	627	167
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	242	429	329	379	602	56	79	2039	290	236	627	167
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:	242	429	329	379	602	56	79	2039	290	236	627	167
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.99	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	1.11	0.89	1.00	2.00	1.00	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1750	2093	1605	1750	3800	1750	1750	5700	1750	1750	5700	1750
Capacity Analysis Module:												
Vol/Sat:	0.14	0.20	0.20	0.22	0.16	0.03	0.05	0.36	0.17	0.13	0.11	0.10
Crit Moves:		****		****				****		****		
Green Time:	36.1	37.7	37.7	39.8	41.4	41.4	26.3	65.7	101.9	24.8	64.2	104.0
Volume/Cap:	0.69	0.98	0.98	0.98	0.69	0.14	0.31	0.98	0.29	0.98	0.31	0.17
Delay/Veh:	72.5	98.0	98.0	109.8	65.8	55.3	69.4	71.6	20.5	129.3	42.0	17.8
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:	72.5	98.0	98.0	109.8	65.8	55.3	69.4	71.6	20.5	129.3	42.0	17.8
LOS by Move:	E	F	F	F	E	E	E	E	C	F	D	B
HCM2kAvgQ:	14	26	26	27	16	3	4	42	9	18	8	4

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3203: 85/SAMARITAN



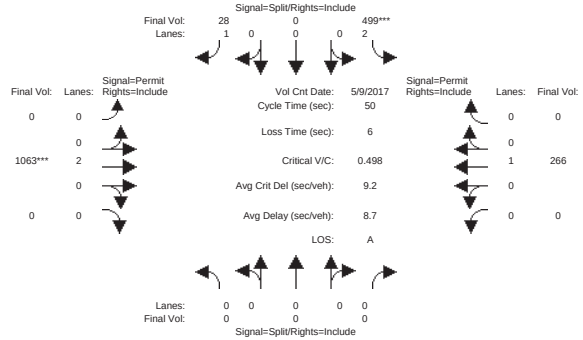
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	0	0	0	499	0	22	0	770	0	0	155	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	499	0	22	0	770	0	0	155	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	499	0	22	0	770	0	0	155	0
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:	0	0	0	499	0	22	0	770	0	0	155	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	499	0	22	0	770	0	0	155	0
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:	0	0	0	499	0	22	0	770	0	0	155	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	0.00	0.00	1.00	0.00
Final Sat.:	0	0	0	3150	0	1750	0	3800	0	0	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.01	0.00	0.20	0.00	0.00	0.08	0.00
Crit Moves:				****				****				
Green Time:	0.0	0.0	0.0	19.3	0.0	19.3	0.0	24.7	0.0	0.0	24.7	0.0
Volume/Cap:	0.00	0.00	0.00	0.41	0.00	0.03	0.00	0.41	0.00	0.00	0.17	0.00
Delay/Veh:	0.0	0.0	0.0	11.4	0.0	9.6	0.0	8.2	0.0	0.0	7.1	0.0
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:	0.0	0.0	0.0	11.4	0.0	9.6	0.0	8.2	0.0	0.0	7.1	0.0
LOS by Move:	A	A	A	B	A	A	A	A	A	A	A	A
HCM2kAvgQ:	0	0	0	4	0	0	0	4	0	0	1	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3203: 85/SAMARITAN



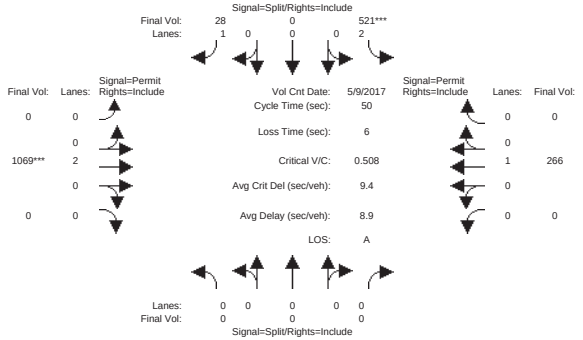
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	0	0	0	499	0	28	0	1063	0	0	266	0
Growth Adj:	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:	0	0	0	499	0	28	0	1063	0	0	266	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	499	0	28	0	1063	0	0	266	0
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:	0	0	0	499	0	28	0	1063	0	0	266	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	499	0	28	0	1063	0	0	266	0
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:	0	0	0	499	0	28	0	1063	0	0	266	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	0.00	0.00	1.00	0.00
Final Sat.:	0	0	0	3150	0	1750	0	3800	0	0	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.02	0.00	0.28	0.00	0.00	0.14	0.00
Crit Moves:				****				****				
Green Time:	0.0	0.0	0.0	15.9	0.0	15.9	0.0	28.1	0.0	0.0	28.1	0.0
Volume/Cap:	0.00	0.00	0.00	0.50	0.00	0.05	0.00	0.50	0.00	0.00	0.25	0.00
Delay/Veh:	0.0	0.0	0.0	14.2	0.0	11.8	0.0	6.8	0.0	0.0	5.7	0.0
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:	0.0	0.0	0.0	14.2	0.0	11.8	0.0	6.8	0.0	0.0	5.7	0.0
LOS by Move:	A	A	A	B	A	B	A	A	A	A	A	A
HCM2kAvgQ:	0	0	0	4	0	0	0	5	0	0	2	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3203: 85/SAMARITAN



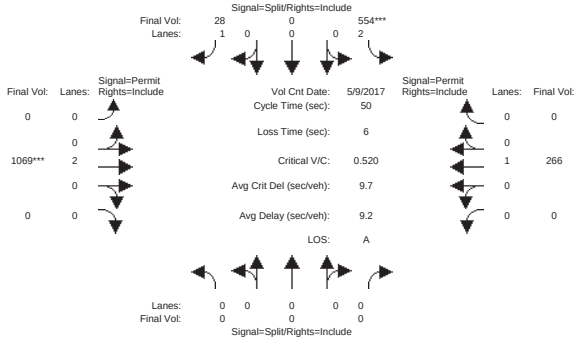
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	0	0	0	521	0	28	0	1069	0	0	266	0
Growth Adj:	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:	0	0	0	521	0	28	0	1069	0	0	266	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	521	0	28	0	1069	0	0	266	0
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:	0	0	0	521	0	28	0	1069	0	0	266	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	521	0	28	0	1069	0	0	266	0
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:	0	0	0	521	0	28	0	1069	0	0	266	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	0.00	0.00	1.00	0.00
Final Sat.:	0	0	0	3150	0	1750	0	3800	0	0	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.17	0.00	0.02	0.00	0.28	0.00	0.00	0.14	0.00
Crit Moves:				****				****				
Green Time:	0.0	0.0	0.0	16.3	0.0	16.3	0.0	27.7	0.0	0.0	27.7	0.0
Volume/Cap:	0.00	0.00	0.00	0.51	0.00	0.05	0.00	0.51	0.00	0.00	0.25	0.00
Delay/Veh:	0.0	0.0	0.0	14.0	0.0	11.6	0.0	7.1	0.0	0.0	5.9	0.0
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:	0.0	0.0	0.0	14.0	0.0	11.6	0.0	7.1	0.0	0.0	5.9	0.0
LOS by Move:	A	A	A	B	A	B	A	A	A	A	A	A
HCM2kAvgQ:	0	0	0	5	0	0	0	6	0	0	2	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project (PM)

Intersection #3203: 85/SAMARITAN



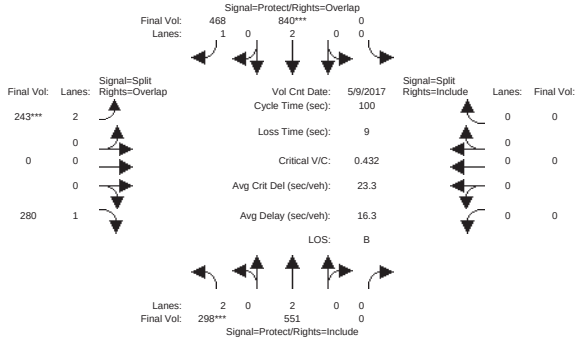
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	10	0	10	0	10	0	0	10	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	0	0	0	554	0	28	0	1069	0	0	266	0
Growth Adj:	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:	0	0	0	554	0	28	0	1069	0	0	266	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	554	0	28	0	1069	0	0	266	0
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:	0	0	0	554	0	28	0	1069	0	0	266	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	554	0	28	0	1069	0	0	266	0
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:	0	0	0	554	0	28	0	1069	0	0	266	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	0.00	0.00	1.00	0.00
Final Sat.:	0	0	0	3150	0	1750	0	3800	0	0	1900	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.02	0.00	0.28	0.00	0.00	0.14	0.00
Crit Moves:				****				****				
Green Time:	0.0	0.0	0.0	16.9	0.0	16.9	0.0	27.1	0.0	0.0	27.1	0.0
Volume/Cap:	0.00	0.00	0.00	0.52	0.00	0.05	0.00	0.52	0.00	0.00	0.26	0.00
Delay/Veh:	0.0	0.0	0.0	13.7	0.0	11.1	0.0	7.6	0.0	0.0	6.2	0.0
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:	0.0	0.0	0.0	13.7	0.0	11.1	0.0	7.6	0.0	0.0	6.2	0.0
LOS by Move:	A	A	A	B	A	B	A	A	A	A	A	A
HCM2kAvgQ:	0	0	0	5	0	0	0	6	0	0	2	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3204: 85/UNION(N)



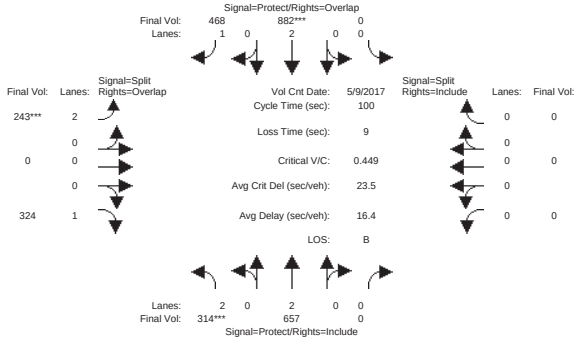
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	7	10	0	0	10	10	0	10	0	10	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<																
Base Vol:	298	551	0	0	840	468	243	0	280	0	0	0				
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:	298	551	0	0	840	468	243	0	280	0	0	0				
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
ATI:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	298	551	0	0	840	468	243	0	280	0	0	0				
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:	298	551	0	0	840	468	243	0	280	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	298	551	0	0	840	468	243	0	280	0	0	0				
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:	298	551	0	0	840	468	243	0	280	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92				
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	3150	3800	0	0	3800	1750	3150	0	1750	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.09	0.15	0.00	0.00	0.22	0.27	0.08	0.00	0.16	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green Time:	21.9	73.1	0.0	0.0	51.2	69.1	17.9	0.0	39.8	0.0	0.0	0.0				
Volume/Cap:	0.43	0.20	0.00	0.00	0.43	0.39	0.43	0.00	0.40	0.00	0.00	0.00				
Delay/Veh:	34.1	4.3	0.0	0.0	15.4	6.7	37.1	0.0	22.0	0.0	0.0	0.0				
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:	34.1	4.3	0.0	0.0	15.4	6.7	37.1	0.0	22.0	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	B	A	D	A	C	A	A	A				
HCM2kAvgQ:	5	3	0	0	8	6	4	0	7	0	0	0				

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3204: 85/UNION(N)



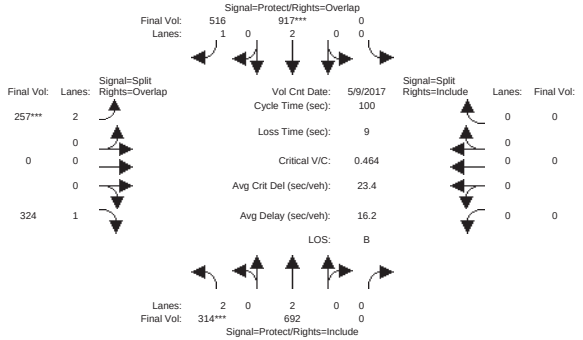
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	7	10	0	0	10	10	0	10	0	10	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<																
Base Vol:	314	657	0	0	882	468	243	0	324	0	0	0				
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:	314	657	0	0	882	468	243	0	324	0	0	0				
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
ATI:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	314	657	0	0	882	468	243	0	324	0	0	0				
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:	314	657	0	0	882	468	243	0	324	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	314	657	0	0	882	468	243	0	324	0	0	0				
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:	314	657	0	0	882	468	243	0	324	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92				
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	3150	3800	0	0	3800	1750	3150	0	1750	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.10	0.17	0.00	0.00	0.23	0.27	0.08	0.00	0.19	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green Time:	21.7	72.4	0.0	0.0	50.6	69.3	18.6	0.0	40.4	0.0	0.0	0.0				
Volume/Cap:	0.46	0.24	0.00	0.00	0.46	0.39	0.41	0.00	0.46	0.00	0.00	0.00				
Delay/Veh:	34.5	4.7	0.0	0.0	16.1	6.7	36.3	0.0	22.3	0.0	0.0	0.0				
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:	34.5	4.7	0.0	0.0	16.1	6.7	36.3	0.0	22.3	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	B	A	D	A	C	A	A	A				
HCM2kAvgQ:	5	3	0	0	8	6	4	0	8	0	0	0				

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3204: 85/UNION(N)



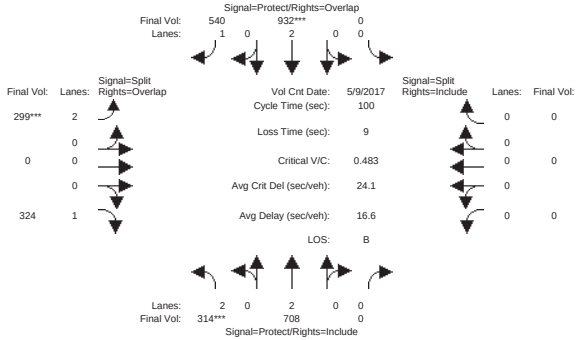
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	7	10	0	0	10	10	0	10	0	10	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<																
Base Vol:	314	692	0	0	917	516	257	0	324	0	0	0				
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:	314	692	0	0	917	516	257	0	324	0	0	0				
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
ATI:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	314	692	0	0	917	516	257	0	324	0	0	0				
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:	314	692	0	0	917	516	257	0	324	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	314	692	0	0	917	516	257	0	324	0	0	0				
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:	314	692	0	0	917	516	257	0	324	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92				
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	3150	3800	0	0	3800	1750	3150	0	1750	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.10	0.18	0.00	0.00	0.24	0.29	0.08	0.00	0.19	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green Time:	21.3	72.8	0.0	0.0	51.5	69.7	18.2	0.0	39.5	0.0	0.0	0.0				
Volume/Cap:	0.47	0.25	0.00	0.00	0.47	0.42	0.45	0.00	0.47	0.00	0.00	0.00				
Delay/Veh:	34.9	4.6	0.0	0.0	15.7	6.7	37.0	0.0	23.0	0.0	0.0	0.0				
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:	34.9	4.6	0.0	0.0	15.7	6.7	37.0	0.0	23.0	0.0	0.0	0.0				
LOS by Move:	C	A	A	A	B	A	D	A	C	A	A	A				
HCM2kAvgQ:	5	3	0	0	9	7	5	0	8	0	0	0				

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project (PM)

Intersection #3204: 85/UNION(N)



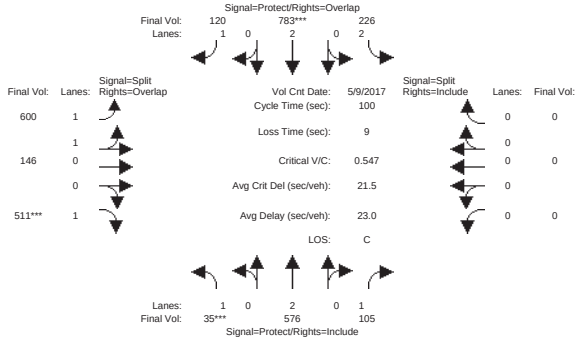
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	7	10	0	0	10	10	0	10	0	10	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<																
Base Vol:	314	708	0	0	932	540	299	0	324	0	0	0				
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:	314	708	0	0	932	540	299	0	324	0	0	0				
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
ATI:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	314	708	0	0	932	540	299	0	324	0	0	0				
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:	314	708	0	0	932	540	299	0	324	0	0	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	314	708	0	0	932	540	299	0	324	0	0	0				
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:	314	708	0	0	932	540	299	0	324	0	0	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.83	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	1.00	0.92				
Lanes:	2.00	2.00	0.00	0.00	2.00	1.00	2.00	0.00	1.00	0.00	0.00	0.00				
Final Sat.:	3150	3800	0	0	3800	1750	3150	0	1750	0	0	0				
Capacity Analysis Module:																
Vol/Sat:	0.10	0.19	0.00	0.00	0.25	0.31	0.09	0.00	0.19	0.00	0.00	0.00				
Crit Moves:	****				****		****									
Green Time:	20.6	71.4	0.0	0.0	50.7	70.4	19.6	0.0	40.3	0.0	0.0	0.0				
Volume/Cap:	0.48	0.26	0.00	0.00	0.48	0.44	0.48	0.00	0.46	0.00	0.00	0.00				
Delay/Veh:	35.6	5.1	0.0	0.0	16.3	6.6	36.3	0.0	22.4	0.0	0.0	0.0				
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:	35.6	5.1	0.0	0.0	16.3	6.6	36.3	0.0	22.4	0.0	0.0	0.0				
LOS by Move:	D	A	A	A	B	A	D	A	C	A	A	A				
HCM2kAvgQ:	5	4	0	0	9	8	5	0	8	0	0	0				

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3205: 85/UNION(S)



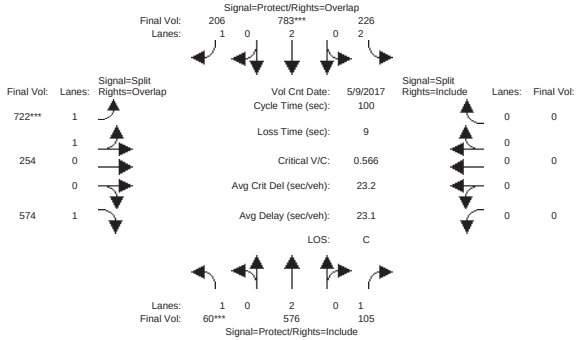
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	7	10	10		7	10	10		10	10	10		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Volume Module: >> Count Date: 9 May 2017 <<																
Base Vol:	35	576	105		226	783	120		600	146	511		0	0	0	
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:	35	576	105		226	783	120		600	146	511		0	0	0	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
ATI:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	35	576	105		226	783	120		600	146	511		0	0	0	
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:	35	576	105		226	783	120		600	146	511		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	35	576	105		226	783	120		600	146	511		0	0	0	
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:	35	576	105		226	783	120		600	146	511		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	1.00	0.92		0.83	1.00	0.92		0.93	0.95	0.92		0.92	1.00	0.92	
Lanes:	1.00	2.00	1.00		2.00	2.00	1.00		1.61	0.39	1.00		0.00	0.00	0.00	
Final Sat.:	1750	3800	1750		3150	3800	1750		2855	695	1750		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.15	0.06		0.07	0.21	0.07		0.21	0.21	0.29		0.00	0.00	0.00	
Crit Moves:	****					****					****					
Green Time:	7.0	32.2	32.2		15.2	40.4	84.0		43.6	43.6	50.6		0.0	0.0	0.0	
Volume/Cap:	0.29	0.47	0.19		0.47	0.51	0.08		0.48	0.48	0.58		0.00	0.00	0.00	
Delay/Veh:	45.4	27.4	24.6		39.4	22.6	1.4		20.4	20.4	18.2		0.0	0.0	0.0	
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:	45.4	27.4	24.6		39.4	22.6	1.4		20.4	20.4	18.2		0.0	0.0	0.0	
LOS by Move:	D	C	C		D	C	A		C	C	B		A	A	A	
HCM2kAvgQ:	1	7	3		4	9	1		8	8	12		0	0	0	

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3205: 85/UNION(S)



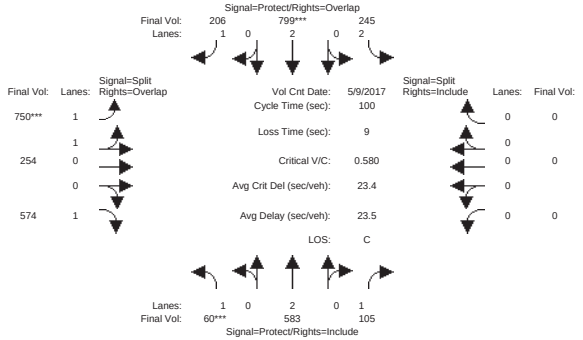
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	7	10	10		7	10	10		10	10	10		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Volume Module: >> Count Date: 9 May 2017 <<																
Base Vol:	60	576	105		226	783	206		722	254	574		0	0	0	
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:	60	576	105		226	783	206		722	254	574		0	0	0	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
ATI:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	60	576	105		226	783	206		722	254	574		0	0	0	
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:	60	576	105		226	783	206		722	254	574		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	60	576	105		226	783	206		722	254	574		0	0	0	
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:	60	576	105		226	783	206		722	254	574		0	0	0	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	1.00	0.92		0.83	1.00	0.92		0.93	0.95	0.92		0.92	1.00	0.92	
Lanes:	1.00	2.00	1.00		2.00	2.00	1.00		1.49	0.51	1.00		0.00	0.00	0.00	
Final Sat.:	1750	3800	1750		3150	3800	1750		2626	924	1750		0	0	0	
Capacity Analysis Module:																
Vol/Sat:	0.03	0.15	0.06		0.07	0.21	0.12		0.27	0.27	0.33		0.00	0.00	0.00	
Crit Moves:	****					****			****							
Green Time:	7.0	29.2	29.2		13.8	36.0	84.0		48.0	48.0	55.0		0.0	0.0	0.0	
Volume/Cap:	0.49	0.52	0.21		0.52	0.57	0.14		0.57	0.57	0.60		0.00	0.00	0.00	
Delay/Veh:	47.8	30.0	26.9		41.1	26.4	1.5		19.1	19.1	16.1		0.0	0.0	0.0	
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:	47.8	30.0	26.9		41.1	26.4	1.5		19.1	19.1	16.1		0.0	0.0	0.0	
LOS by Move:	D	C	C		D	C	A		B	B	B		A	A	A	
HCM2kAvgQ:	3	8	3		4	9	1		11	11	13		0	0	0	

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3205: 85/UNION(S)



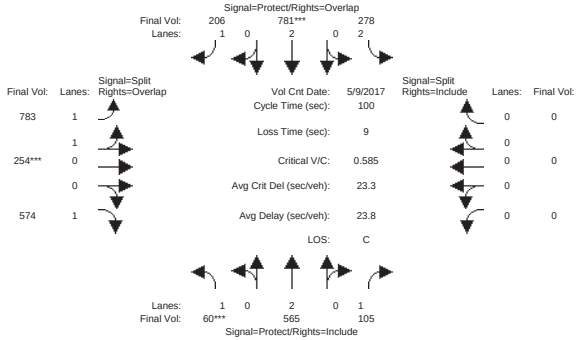
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	60	583	105	245	799	206	750	254	574	0	0	0
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:	60	583	105	245	799	206	750	254	574	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	583	105	245	799	206	750	254	574	0	0	0
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:	60	583	105	245	799	206	750	254	574	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	583	105	245	799	206	750	254	574	0	0	0
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:	60	583	105	245	799	206	750	254	574	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.95	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.50	0.50	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	1750	3150	3800	1750	2652	898	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.15	0.06	0.08	0.21	0.12	0.28	0.28	0.33	0.00	0.00	0.00
Crit Moves:	****				****		****					
Green Time:	7.0	28.4	28.4	14.4	35.8	84.0	48.2	48.2	55.2	0.0	0.0	0.0
Volume/Cap:	0.49	0.54	0.21	0.54	0.59	0.14	0.59	0.59	0.59	0.00	0.00	0.00
Delay/Veh:	47.8	30.8	27.5	41.0	26.8	1.5	19.3	19.3	16.0	0.0	0.0	0.0
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:	47.8	30.8	27.5	41.0	26.8	1.5	19.3	19.3	16.0	0.0	0.0	0.0
LOS by Move:	D	C	C	D	C	A	B	B	B	A	A	A
HCM2kAvgQ:	3	8	3	4	10	1	12	12	12	0	0	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project (PM)

Intersection #3205: 85/UNION(S)



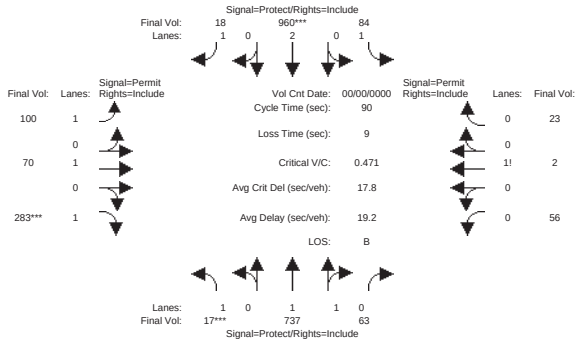
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	60	565	105	278	781	206	783	254	574	0	0	0
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:	60	565	105	278	781	206	783	254	574	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	60	565	105	278	781	206	783	254	574	0	0	0
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:	60	565	105	278	781	206	783	254	574	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	565	105	278	781	206	783	254	574	0	0	0
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:	60	565	105	278	781	206	783	254	574	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.93	0.95	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.52	0.48	1.00	0.00	0.00	0.00
Final Sat.:	1750	3800	1750	3150	3800	1750	2680	869	1750	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.15	0.06	0.09	0.21	0.12	0.29	0.29	0.33	0.00	0.00	0.00
Crit Moves:	****				****			****				
Green Time:	7.0	26.2	26.2	15.5	34.7	84.0	49.3	49.3	56.3	0.0	0.0	0.0
Volume/Cap:	0.49	0.57	0.23	0.57	0.59	0.14	0.59	0.59	0.58	0.00	0.00	0.00
Delay/Veh:	47.8	32.8	29.3	40.7	27.6	1.5	18.7	18.7	15.1	0.0	0.0	0.0
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:	47.8	32.8	29.3	40.7	27.6	1.5	18.7	18.7	15.1	0.0	0.0	0.0
LOS by Move:	D	C	C	D	C	A	B	B	B	A	A	A
HCM2kAvgQ:	3	8	3	5	10	1	12	12	12	0	0	0

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3410: COLE/UNION



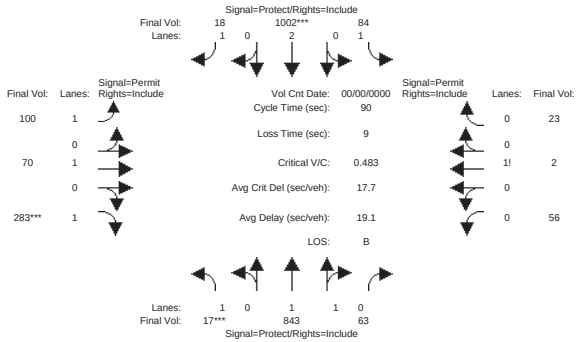
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 0 0 <<												
Base Vol:	17	737	63	84	960	18	100	70	283	56	2	23
Growth 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:	17	737	63	84	960	18	100	70	283	56	2	23
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	737	63	84	960	18	100	70	283	56	2	23
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:	17	737	63	84	960	18	100	70	283	56	2	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	737	63	84	960	18	100	70	283	56	2	23
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:	17	737	63	84	960	18	100	70	283	56	2	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.84	0.16	1.00	2.00	1.00	1.00	1.00	1.00	0.70	0.02	0.28
Final Sat.:	1750	3408	291	1750	3800	1750	1750	1900	1750	1210	43	497
Capacity Analysis Module:												
Vol/Sat:	0.01	0.22	0.22	0.05	0.25	0.01	0.06	0.04	0.16	0.05	0.05	0.05
Crit Moves:	****				****				****			
Green Time:	7.0	38.3	38.3	13.8	45.1	45.1	28.9	28.9	28.9	28.9	28.9	28.9
Volume/Cap:	0.12	0.51	0.51	0.31	0.50	0.02	0.18	0.11	0.50	0.14	0.14	0.14
Delay/Veh:	39.1	19.2	19.2	34.6	15.2	11.3	22.2	21.6	25.5	21.9	21.9	21.9
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:	39.1	19.2	19.2	34.6	15.2	11.3	22.2	21.6	25.5	21.9	21.9	21.9
LOS by Move:	D	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	0	8	8	2	9	0	2	1	7	2	2	2

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3410: COLE/UNION



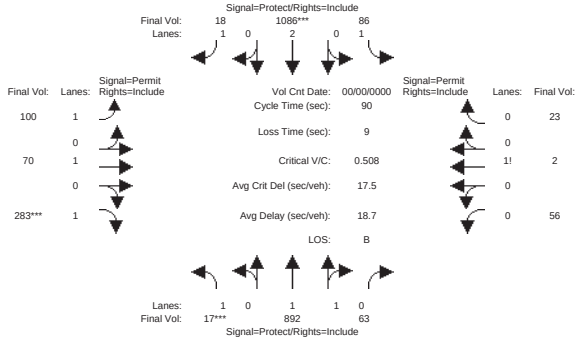
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 0 0 <<												
Base Vol:	17	843	63	84	1002	18	100	70	283	56	2	23
Growth 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:	17	843	63	84	1002	18	100	70	283	56	2	23
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	843	63	84	1002	18	100	70	283	56	2	23
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:	17	843	63	84	1002	18	100	70	283	56	2	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	843	63	84	1002	18	100	70	283	56	2	23
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:	17	843	63	84	1002	18	100	70	283	56	2	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.86	0.14	1.00	2.00	1.00	1.00	1.00	1.00	0.70	0.02	0.28
Final Sat.:	1750	3443	257	1750	3800	1750	1750	1900	1750	1210	43	497
Capacity Analysis Module:												
Vol/Sat:	0.01	0.24	0.24	0.05	0.26	0.01	0.06	0.04	0.16	0.05	0.05	0.05
Crit Moves:	****				****				****			
Green Time:	7.0	40.1	40.1	12.7	45.9	45.9	28.1	28.1	28.1	28.1	28.1	28.1
Volume/Cap:	0.12	0.55	0.55	0.34	0.52	0.02	0.18	0.12	0.52	0.15	0.15	0.15
Delay/Veh:	39.1	18.7	18.7	35.6	14.9	10.9	22.7	22.2	26.2	22.4	22.4	22.4
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:	39.1	18.7	18.7	35.6	14.9	10.9	22.7	22.2	26.2	22.4	22.4	22.4
LOS by Move:	D	B	B	D	B	B	C	C	C	C	C	C
HCM2kAvgQ:	0	9	9	3	9	0	2	1	7	2	2	2

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3410: COLE/UNION



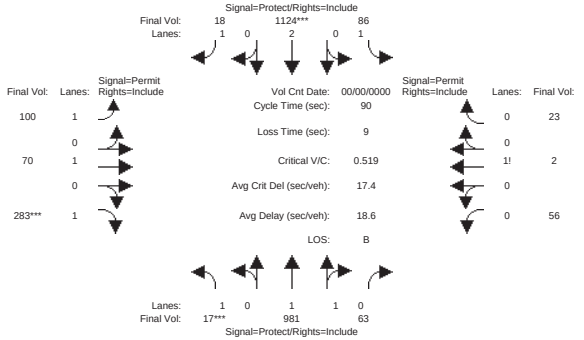
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 0 0 <<												
Base Vol:	17	892	63	86	1086	18	100	70	283	56	2	23
Growth 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:	17	892	63	86	1086	18	100	70	283	56	2	23
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	892	63	86	1086	18	100	70	283	56	2	23
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:	17	892	63	86	1086	18	100	70	283	56	2	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	892	63	86	1086	18	100	70	283	56	2	23
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:	17	892	63	86	1086	18	100	70	283	56	2	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.86	0.14	1.00	2.00	1.00	1.00	1.00	1.00	0.70	0.02	0.28
Final Sat.:	1750	3456	244	1750	3800	1750	1750	1900	1750	1210	43	497
Capacity Analysis Module:												
Vol/Sat:	0.01	0.26	0.26	0.05	0.29	0.01	0.06	0.04	0.16	0.05	0.05	0.05
Crit Moves:	****				****				****			
Green Time:	7.0	41.7	41.7	12.6	47.3	47.3	26.7	26.7	26.7	26.7	26.7	26.7
Volume/Cap:	0.12	0.56	0.56	0.35	0.54	0.02	0.19	0.12	0.54	0.16	0.16	0.16
Delay/Veh:	39.1	17.9	17.9	35.9	14.5	10.3	23.8	23.2	27.7	23.5	23.5	23.5
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:	39.1	17.9	17.9	35.9	14.5	10.3	23.8	23.2	27.7	23.5	23.5	23.5
LOS by Move:	D	B	B	D	B	B	C	C	C	C	C	C
HCM2kAvgQ:	0	10	10	3	10	0	2	1	8	2	2	2

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project (PM)

Intersection #3410: COLE/UNION



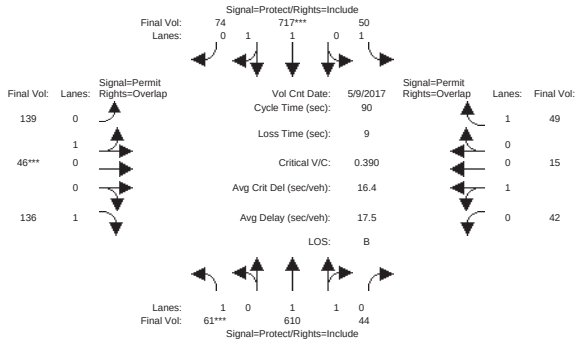
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 0 0 <<												
Base Vol:	17	981	63	86	1124	18	100	70	283	56	2	23
Growth 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:	17	981	63	86	1124	18	100	70	283	56	2	23
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	981	63	86	1124	18	100	70	283	56	2	23
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:	17	981	63	86	1124	18	100	70	283	56	2	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	981	63	86	1124	18	100	70	283	56	2	23
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:	17	981	63	86	1124	18	100	70	283	56	2	23
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92
Lanes:	1.00	1.88	0.12	1.00	2.00	1.00	1.00	1.00	1.00	0.70	0.02	0.28
Final Sat.:	1750	3477	223	1750	3800	1750	1750	1900	1750	1210	43	497
Capacity Analysis Module:												
Vol/Sat:	0.01	0.28	0.28	0.05	0.30	0.01	0.06	0.04	0.16	0.05	0.05	0.05
Crit Moves:	****				****				****			
Green Time:	7.0	43.0	43.0	11.9	47.8	47.8	26.2	26.2	26.2	26.2	26.2	26.2
Volume/Cap:	0.12	0.59	0.59	0.37	0.56	0.02	0.20	0.13	0.56	0.16	0.16	0.16
Delay/Veh:	39.1	17.6	17.6	36.7	14.4	10.0	24.2	23.6	28.4	23.9	23.9	23.9
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:	39.1	17.6	17.6	36.7	14.4	10.0	24.2	23.6	28.4	23.9	23.9	23.9
LOS by Move:	D	B	B	D	B	A	C	C	C	C	C	C
HCM2kAvgQ:	0	11	11	3	11	0	2	1	8	2	2	2

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3833: UNION/WOODARD



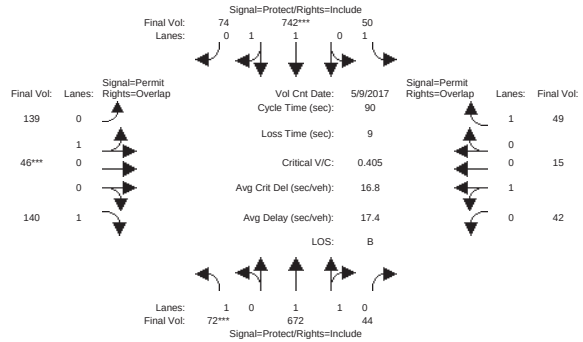
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	61	610	44	50	717	74	139	46	136	42	15	49
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:	61	610	44	50	717	74	139	46	136	42	15	49
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	61	610	44	50	717	74	139	46	136	42	15	49
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:	61	610	44	50	717	74	139	46	136	42	15	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	610	44	50	717	74	139	46	136	42	15	49
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:	61	610	44	50	717	74	139	46	136	42	15	49
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.86	0.14	1.00	1.81	0.19	0.75	0.25	1.00	0.74	0.26	1.00
Final Sat.:	1750	3451	249	1750	3354	346	1352	448	1750	1326	474	1750
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.03	0.21	0.21	0.10	0.10	0.08	0.03	0.03	0.03
Crit Moves:	****				****			****				
Green Time:	8.0	39.8	39.8	17.5	49.3	49.3	23.7	23.7	31.7	23.7	23.7	41.2
Volume/Cap:	0.39	0.40	0.40	0.15	0.39	0.39	0.39	0.39	0.22	0.12	0.12	0.06
Delay/Veh:	40.3	17.2	17.2	30.3	11.8	11.8	27.8	27.8	20.6	25.3	25.3	13.6
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:	40.3	17.2	17.2	30.3	11.8	11.8	27.8	27.8	20.6	25.3	25.3	13.6
LOS by Move:	D	B	B	C	B	B	C	C	C	C	C	B
HCM2kAvgQ:	2	6	6	1	6	6	5	5	3	1	1	1

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3833: UNION/WOODARD



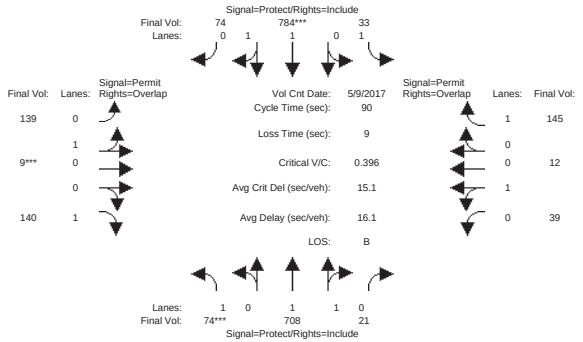
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	72	672	44	50	742	74	139	46	140	42	15	49
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:	72	672	44	50	742	74	139	46	140	42	15	49
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	72	672	44	50	742	74	139	46	140	42	15	49
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:	72	672	44	50	742	74	139	46	140	42	15	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	672	44	50	742	74	139	46	140	42	15	49
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:	72	672	44	50	742	74	139	46	140	42	15	49
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.87	0.13	1.00	1.81	0.19	0.75	0.25	1.00	0.74	0.26	1.00
Final Sat.:	1750	3472	227	1750	3364	336	1352	448	1750	1326	474	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.19	0.19	0.03	0.22	0.22	0.10	0.10	0.08	0.03	0.03	0.03
Crit Moves:	****				****			****				
Green Time:	9.1	41.5	41.5	16.7	49.0	49.0	22.8	22.8	32.0	22.8	22.8	39.5
Volume/Cap:	0.40	0.42	0.42	0.15	0.40	0.40	0.40	0.40	0.23	0.12	0.12	0.06
Delay/Veh:	39.4	16.4	16.4	31.0	12.1	12.1	28.5	28.5	20.5	26.0	26.0	14.6
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:	39.4	16.4	16.4	31.0	12.1	12.1	28.5	28.5	20.5	26.0	26.0	14.6
LOS by Move:	D	B	B	C	B	B	C	C	C	C	C	B
HCM2kAvgQ:	2	7	7	1	7	7	5	5	3	1	1	1

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

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

Intersection #3833: UNION/WOODARD



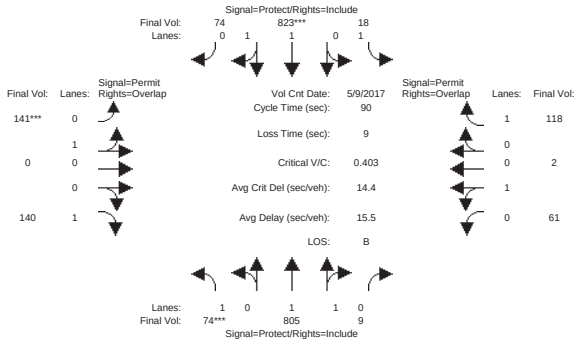
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	74	702	44	50	782	74	139	46	140	42	15	49
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:	74	702	44	50	782	74	139	46	140	42	15	49
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	6	-23	-17	2	0	0	-37	0	-3	-3	96
Initial Fut:	74	708	21	33	784	74	139	9	140	39	12	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	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:	74	708	21	33	784	74	139	9	140	39	12	145
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	708	21	33	784	74	139	9	140	39	12	145
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:	74	708	21	33	784	74	139	9	140	39	12	145
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.94	0.06	1.00	1.82	0.18	0.94	0.06	1.00	0.76	0.24	1.00
Final Sat.:	1750	3593	107	1750	3381	319	1691	109	1750	1376	424	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.20	0.20	0.02	0.23	0.23	0.08	0.08	0.08	0.03	0.03	0.08
Crit Moves:	****				****			****				
Green Time:	9.6	44.7	44.7	17.6	52.7	52.7	18.7	18.7	28.3	18.7	18.7	36.3
Volume/Cap:	0.40	0.40	0.40	0.10	0.40	0.40	0.40	0.40	0.25	0.14	0.14	0.21
Delay/Veh:	38.9	14.4	14.4	29.8	10.2	10.2	31.5	31.5	23.2	29.2	29.2	17.6
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:	38.9	14.4	14.4	29.8	10.2	10.2	31.5	31.5	23.2	29.2	29.2	17.6
LOS by Move:	D	B	B	C	B	B	C	C	C	C	C	B
HCM2kAvgQ:	2	6	6	1	7	7	4	4	3	1	1	3

Note: Queue reported is the number of cars per lane.

City of San Jose
4525 Union Avenue - Harker Middle School

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
Cumulative+Project (PM)

Intersection #3833: UNION/WOODARD

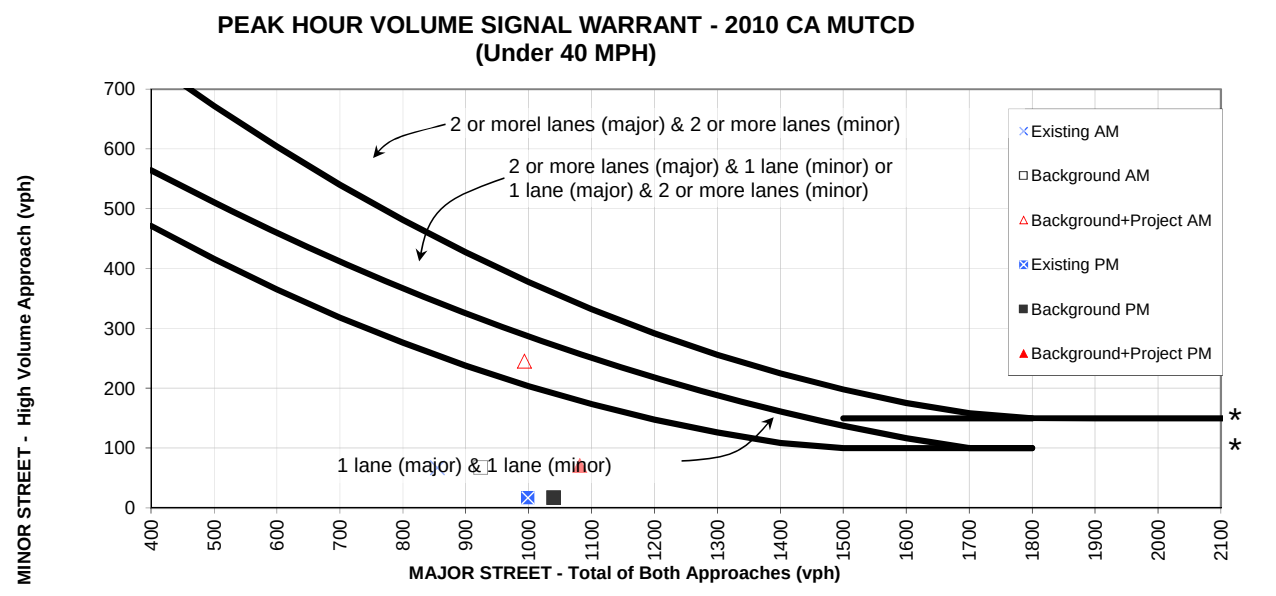


Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 9 May 2017 <<												
Base Vol:	74	800	32	35	822	74	141	2	140	65	5	22
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:	74	800	32	35	822	74	141	2	140	65	5	22
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	5	-23	-17	1	0	0	-37	0	-4	-3	96
Initial Fut:	74	805	9	18	823	74	141	-35	140	61	2	118
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
PHF Volume:	74	805	9	18	823	74	141	0	140	61	2	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	805	9	18	823	74	141	0	140	61	2	118
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
FinalVolume:	74	805	9	18	823	74	141	0	140	61	2	118
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.97	0.95	0.92	0.98	0.95	0.95	0.95	0.92	0.95	0.95	0.92
Lanes:	1.00	1.98	0.02	1.00	1.83	0.17	1.00	0.00	1.00	0.97	0.03	1.00
Final Sat.:	1750	3659	41	1750	3395	305	1800	0	1750	1743	57	1750
Capacity Analysis Module:												
Vol/Sat:	0.04	0.22	0.22	0.01	0.24	0.24	0.08	0.00	0.08	0.04	0.04	0.07
Crit Moves:	****				****		****					
Green Time:	9.4	46.9	46.9	16.6	54.1	54.1	17.5	0.0	26.9	17.5	17.5	34.1
Volume/Cap:	0.40	0.42	0.42	0.06	0.40	0.40	0.40	0.00	0.27	0.18	0.18	0.18
Delay/Veh:	39.1	13.4	13.4	30.3	9.6	9.6	32.5	0.0	24.3	30.5	30.5	18.8
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:	39.1	13.4	13.4	30.3	9.6	9.6	32.5	0.0	24.3	30.5	30.5	18.8
LOS by Move:	D	B	B	C	A	A	C	A	C	C	C	B
HCM2kAvgQ:	2	7	7	0	7	7	4	0	3	2	2	2

Note: Queue reported is the number of cars per lane.

Appendix E
Signal Warrant Sheets

Union Avenue and Northern Project Driveway



* NOTE: 150 vph applies as the lower threshold volume for a minor street approach with 2 or more lanes and 100 vph applies as the lower threshold volume for a minor street approach with 1 lane.

Peak Hour Volume Warrant Per 2003 MUTCD- Under 40 MPH

		Approach Lanes		AM Peak Hour Volumes		
		One	2 or More	*Existing AM*	*Background AM*	*Background+Project AM*
Major Street - Southbound	Union Ave		x	855	924	993
Minor Street - Northbound	Union Ave Left-Turn Lane	x		67	67	245
	Warrant Met?			no	no	yes

		Approach Lanes		PM Peak Hour Volumes		
		One	2 or More	*Existing PM*	*Background PM*	*Background+Project PM*
Major Street - Southbound	Union Ave		x	999	1040	1081
Minor Street - Northbound	Union Ave Left-Turn Lane	x		17	17	71
	Warrant Met?			no	no	no