

Appendix F
Traffic Analysis and Memorandum



HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date: June 24, 2019
To: Leianne Humble, Denise Duffy & Associates, Inc.
From: Robert Del Rio, T.E.
Subject: Traffic Study Consistency Review for the 1495 Winchester Mixed-Use Development Project Description Adjustments

This memo presents a supplemental evaluation of consistency with the completed traffic study for the proposed 1495 Winchester Boulevard mixed-use development project description adjustments. A traffic study report dated January 21, 2019 was completed for the following project description:

- 46 residential units
- 7,000 s.f. of retail space
- 12,700 s.f. of office space

The new project description proposes a reduction of 2,000 s.f. in retail space and the elimination of the 12,700 s.f. of office space. The supplemental evaluation consists of a comparison of trip generation for the new project description against that of the original project description for which the traffic study was completed. In addition, a review of the revised site plan also was completed.

Revised Trip Generation

The magnitude of traffic generated by the proposed project was estimated by applying to the size of the development the applicable trip generation rates published in the Institute of Transportation Engineers (ITE) manual entitled Trip Generation, Tenth Edition. The trip generation comparison indicates that the proposed change in project description will result in a reduction in estimated trips to be generated by the proposed project. The project trip generation estimates are presented in Table 1. The adjustment of project description will result in a reduction of 161 daily trips and 15 trips during the AM peak-hour and 21 trips during the PM peak-hour. Therefore, it can be concluded that the new project description would not result in a change to the results that were reported in the completed traffic study for the proposed project.

Revised Site Plan

A review of the project site plan was included in the January 2019 traffic study to determine if adequate site access and on-site circulation were to be provided and to identify any access or circulation issues that should be improved. The review was completed based on a site plan dated December 2018. The December 2018 site plan proposed 109 parking spaces within three levels of below-grade parking to be access via one driveway along Cadillac Drive. The revised project description and site plan dated May 2019 includes the elimination of one level of on-site parking and reduction in provided parking from 109 spaces to 72 spaces. With the elimination of the originally proposed office space and reduction in retail space, the required number of on-site parking spaces also is reduced from 109 spaces to 68 spaces. Therefore, the proposed on-site parking will meet the City's parking requirements. The revised site plan indicates that the project driveway will be 26 feet wide per the City's driveway width requirements. The remainder of the revised site plan appears to be unchanged from the December 2018 site plan in terms of on-site circulation and parking.



**Table 1
Trip Generation Comparison**

Land Use	ITE Trip Generation Rate	Reduction %	Size	Daily		AM Peak Hour						PM Peak Hour					
				Rate	Trips	Split		Trips			Split		Trips				
						In	Out	In	Out	Total	Rate	In	Out	In	Out	Total	
Proposed Project (TIA dated January 21, 2019)																	
Residential	221 - Multifamily Housing (Mid-Rise)		46 Dwelling Units	5.44	250	0.36	26%	74%	4	13	17	0.44	61%	39%	12	8	20
	<i>housing and retail mixed-use reduction¹</i>	15%			-38				0	-1	-1				-2	-1	-3
	<i>housing and employment mixed-use reduction²</i>	3%			-4			0	0	0					0	0	0
Retail	820 - Shopping Center		7,000 Square Feet	37.75	264	0.94	62%	38%	4	3	7	3.81	48%	52%	13	14	27
	<i>housing and retail mixed-use reduction¹</i>	15%			-38				-1	0	-1				-1	-2	-3
	<i>employment and retail mixed-use reduction³</i>	3%			-4			0	0	0					0	0	0
	<i>retail passby⁴</i>	25%			-6			0	0	0					-3	-3	-6
Office	710 - General Office Building		12,700 Square Feet	9.74	124	1.16	86%	14%	13	2	15	1.15	16%	84%	2	13	15
	<i>housing and employment mixed-use reduction²</i>	3%			-4			0	0	0					0	0	0
	<i>employment and retail mixed-use reduction³</i>	3%			-4			0	0	0					0	0	0
Total Proposed Project Trips					540				20	17	37				21	29	50
Existing Land Use																	
Commercial ⁵	820 - Shopping Center		1,300 Square Feet	37.75	49	1.54	50%	50%	-1	-1	-2	3.85	0%	100%	0	-5	-5
Net Project Trips (Proposed - Existing)					491				19	16	35				21	24	45
Proposed Reduced Project																	
Residential	221 - Multifamily Housing (Mid-Rise)		46 Dwelling Units	5.44	250	0.36	26%	74%	4	13	17	0.44	61%	39%	12	8	20
	<i>housing and retail mixed-use reduction¹</i>	15%			-28				0	0	0				-2	-1	-3
Retail	820 - Shopping Center		5,000 Square Feet	37.75	189	0.94	62%	38%	3	2	5	3.81	48%	52%	9	10	19
	<i>housing and retail mixed-use reduction¹</i>	15%			-28				0	0	0				-1	-2	-3
	<i>retail passby⁴</i>	25%			-4				0	0	0				-2	-2	-4
Total Proposed Project Trips					379				7	15	22				16	13	29
Existing Land Use																	
Commercial ⁵	820 - Shopping Center		1,300 Square Feet	37.75	-49	1.54	50%	50%	-1	-1	-2	3.85	0%	100%	0	-5	-5
Net Project Trips (Proposed Reduced - Existing)					330				6	14	20				16	8	24
Difference (Reduced Project - Project TIA)					-161				-13	-2	-15				-5	-16	-21
Source: ITE Trip Generation Manual, 10 th Edition 2017. (Average rates were used all for land uses)																	
¹ As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with housing and retail components is equal to 15% off the smaller trip generator.																	
² As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with housing and employment components is equal to 3% off the smaller trip generator.																	
³ As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with employment and employee-serving retail components is equal to 3% off the employment component.																	
⁴ A 25% PM pass-by reduction is typically applied for retail development within Santa Clara County.																	
⁵ Peak-hour trips for the existing uses were obtained from driveway counts conducted on May 16, 2018. Daily trips were estimated using ITE rates. The existing uses on site closes at 4PM, therefore, the PM peak hour trips only consist of employees leaving the site.																	



HEXAGON TRANSPORTATION CONSULTANTS, INC.

1495 S. Winchester Boulevard Mixed-Use Development

Traffic Impact Analysis

Prepared for:

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January 21, 2019



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Executive Summary

This report presents the results of the traffic impact analysis conducted for the proposed development located at 1495 S. Winchester Boulevard, at the northwest corner of the Winchester Boulevard and Cadillac Drive intersection, within a designated Urban Village (Winchester Boulevard). According to the Envision San Jose 2040 General Plan, the Urban Village strategy fosters:

- Mixed residential and employment activities that are attractive to an innovative workforce
- Revitalization of underutilized properties that have access to existing infrastructure
- Densities that support transit use, bicycling, and walking
- High-quality urban design

The proposed development would consist of the replacement of a 1,300-s.f. building on the project site with 46 residential units, 7,000 s.f. of retail space, and 12,700 s.f. of office space. The project would be supported by an on-site parking structure with access taken from a driveway on Cadillac Drive.

Scope of Study

The purpose of the study is to identify the potential traffic impacts related to the proposed project. The potential impacts were evaluated following the standards and methodologies set forth by the Cities of San Jose and Campbell and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the County Congestion Management Program (CMP).

The study includes an analysis of AM and PM peak-hour traffic conditions for two signalized intersections and four unsignalized intersections. The study intersections were selected based upon the estimated number of project trips that are projected to be added through the intersections (10 or more trips per lane per hour). Any intersections outside of the study area to which the project would not add 10 or more trips per lane per hour, were not studied because the addition of project traffic would not be a sufficient amount to result in the degradation of intersection levels of service. The study also includes an operations analysis, based on vehicle-storage requirements at select intersections and a review of the proposed site access and on-site circulation. An analysis of freeway segments was not performed because the proposed project would not add traffic equal to at least one percent of capacity of any freeway segment. However, per CMP guidelines, the traffic study includes an evaluation to document the determination that a freeway level of service analysis is not required.

Traffic conditions at all of the study intersections and freeway segments 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.

Project Trip Generation

Based on the ITE trip generation rates and credit for existing uses on the project site, it is estimated that the proposed project would generate an additional 491 daily trips, with 35 trips (19 inbound and 16 outbound) occurring during the AM peak hour and 45 trips (21 inbound and 24 outbound) occurring during the PM peak hour.

Background Plus Project Intersection Level of Service Analysis

Table ES-1 summarizes the results of the intersection level of service analysis under background plus project conditions. The results show the study intersections would not be significantly impacted by the project under background plus project conditions, according to the Cities of San Jose and Campbell and CMP impact criteria.

I-280/Winchester Boulevard Transportation Development Policy

The I-280/Winchester Boulevard interchange area Transportation Development Policy (TDP), adopted in September 2016, provides for additional capacity in the immediate area of the I-880/Stevens Creek Boulevard and I-280/Winchester Boulevard interchanges. The TDP provides partial funding, via a traffic impact fee imposed on proposed development, for the implementation of a new westbound off-ramp from I-280 to Winchester Boulevard to reduce traffic congestion at the I-880/Stevens Creek and Stevens Creek Boulevard corridors. The traffic fee is based on the estimated trips to be added to the new westbound off-ramp from I-280 to Winchester Boulevard by each individual development. It is estimated that the proposed project will result in no more than one peak hour trip to the planned I-280 to Winchester Boulevard ramp.

Freeway Segment Capacity

Per CMP technical guidelines, freeway segment level of service analysis shall be conducted on all segments to which the project is projected to add one percent or more to the segment capacity. Since the project is not projected to add one percent to any freeway segments in the area, freeway analysis for the CMP was not required.

Other Transportation Issues

Site Access

The project will be served by one access point to an on-site parking garage along Cadillac Drive. The parking garage will provide 119 on-site parking spaces. Vehicle queuing issues are not expected to occur at the parking garage entrance based on the relatively low number of project trips at the entrance and low traffic volumes on Cadillac Drive. The estimated peak hour volumes at the garage entrance equate to approximately one vehicle entering or exiting the entrance every two to three minutes.

Project Driveway Design

According to the City of San Jose municipal code, on-site drive aisles that serve two-way drive aisles must be a minimum of 26 feet wide and driveway widths should match the 26 feet wide drive aisles.

The driveway on Cadillac Drive is shown to be 20 feet wide on the provided site plan. The driveway must be widened to 26 feet per the City's driveway design requirement.

Sight Distance at the Driveway Serving the Project

The project access point 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 Schiele Avenue. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site. Appropriate visible and/or audible warning signals should be provided at the garage entrance to alert pedestrians and bicyclists of vehicles exiting the parking garage.

Adequate sight distance (sight distance triangles) should be provided at the project driveway in accordance with the *American Association of State Highway Transportation Officials (AASHTO)* standards. The AASHTO stopping sight distance for a facility with a posted speed limit of 25 mph is 155 feet. Thus, a driver exiting the proposed project driveway on Cadillac Drive must be able to see 155 feet east and west along Cadillac Drive in order to stop and avoid a collision.

Based on the project site plan and observations in the field, vehicles exiting the project site driveway on Cadillac Drive would be able to see approaching traffic on eastbound Cadillac Drive at least 200 feet to the west. The driveway will be located approximately 100 feet west of the Winchester Boulevard and Cadillac Drive intersection. However, drivers would have full view of westbound traffic on Cadillac Drive at the Winchester Boulevard/Cadillac Drive intersection and vehicle speeds will be less than 25 mph when completing turn-movements through the intersection. Therefore, the sight distance from the proposed driveway location to the Winchester Boulevard/Cadillac Drive intersection should be adequate. It should also be noted that the existing site driveway along Cadillac Drive is located only 20 feet west of Winchester Boulevard. Therefore, the proposed relocation of site access will provide for additional spacing from Winchester Boulevard.

On-Site Circulation

On-site vehicular circulation was reviewed for the project in accordance with generally accepted traffic engineering standards. The ground floor parking level will provide 20 retail designated parking spaces and access to a ramp serving the three below grade parking levels. When entering the ground-floor parking level, drivers will proceed to the end of the drive aisle to access a ramp to the three underground parking levels.

The City's standard 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 parking spaces. As shown on the site plan, the drive aisles within the garage measure to be approximately 26 feet wide and would meet the City's requirement. Drive aisles less than 26 feet are adequate, where parking is located on only one side of the drive aisle. Drive aisles less than 26 feet wide with parking on both sides will require City's review and approval.

A dead-end aisle will exist at the end of the drive aisle on the third underground parking level of the garage. Dead end aisles are undesirable because drivers will enter the aisle, and upon discovering that there is no available parking, must back out or conduct three-point turns. In areas where parking spaces are designated for specific individuals, dead end aisles are less problematic. All locations where dead-end aisles are provided should be dedicated for employee use or assigned residential parking.

Truck Access

A trash room is shown on the ground floor level of the parking garage. Garbage trucks will not enter the parking garage. Therefore, trash bins will need to be wheeled out to Cadillac Drive via the parking garage entrance for garbage truck pickup.

According to the City of San Jose Municipal Code (20.90.410 - Required off-street loading spaces), the project is required to provide one off-street loading space. The site plan does not indicate that a loading space will be provided on-site. In lieu of providing off-street loading spaces, it is recommended that the project applicant work with City staff to determine the feasibility of providing a public loading zone on Cadillac Drive along the project frontage. The loading zone must be located a minimum of 20 feet from Winchester Boulevard. Based on the location of the proposed project garage entrance an approximately 60-foot public loading zone could be accommodated along Cadillac Drive.

Transit Services

The project site is served directly by VTA local bus line 60, which operates along Winchester Boulevard. The southbound and northbound bus stops for line 60 are located on Winchester Boulevard along the project's frontage and near Colonial Way, respectively. It can be assumed that some residents/employees of the proposed project would utilize the existing transit services. Applying an estimated three percent transit mode share, which is probably the highest that could be expected for the project, equates to approximately one new transit rider during the AM peak hour and two during the PM peak hour. Assuming the existing transit service would remain unchanged with line 60 providing service with 15-20-minute headways during the peak commute periods at bus stops along Winchester Boulevard, the estimated number of new transit rider using the bus stops located near the project site would equate to no more than two new riders per bus during the peak hours. VTA operations reports indicate that the 60-bus line as well as several other bus lines in the project area serve less than ideal ridership. Therefore, the new riders due to the proposed project could be accommodated by the current available capacity of the bus service in the study area and improvement of the existing transit service would not be necessary with the project.

Bicycle and Pedestrian Facilities

Currently, the Class II bike lane on Winchester Boulevard between Hamilton Avenue and Payne Avenue does not provide a direct connection to other bicycle facilities to the north and south.

The San Jose Bike Plan 2020 and Envision 2040 General Plan, as described below, identify planned improvements to the bicycle network within the City and provide policies and goals that are intended to promote and encourage the use of multi-modal travel options and reduce the identified project impacts to the roadway system. The planned improvements to the bicycle network will provide the project site with improved connections to surrounding pedestrian/bike and transit facilities and a balanced transportation system as outlined in the Envision 2040 General Plan goals and policies.

Pedestrian traffic primarily would consist of residents and employees of the proposed project walking to and from surrounding retail establishments, as well as bus stops on Winchester Boulevard and Hamilton Avenue. Crosswalks with pedestrian signal heads are located at the David Avenue and Hamilton Avenue signalized intersections with Winchester Boulevard. However, pedestrian access to the bus stop along northbound Winchester Boulevard across from the project will require the use of crosswalks at the David Avenue intersection. This will require a pedestrian route of approximately 600 feet to the north versus an uncontrolled 200-foot long crossing of Winchester Boulevard. However, implementation of a crosswalk at Cadillac Drive is not recommended due to its close proximity to the David Avenue signalized intersection. All of the roadways in the vicinity of the project site have sidewalks on both sides of the street.

Public Transit/Pedestrian/Bike Improvements

The proposed project site is located within the Winchester Boulevard Urban Village Boundary and fronts Winchester Boulevard, which has been designated as a Grand Boulevard by the Envision San José 2040 General Plan. Sites within an Urban Village and located along a Grand Boulevard must incorporate additional urban design and architectural elements that will facilitate a building with pedestrian orientated design and activate the pedestrian public right-of-way.

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 operational issues on 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 be required to 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 in regard to 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 improvements for vehicular circulation.
- Give priority to pedestrian improvement projects that improve pedestrian safety, 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:

- Winchester Boulevard, between Payne Avenue and Moorpark Avenue
- Cypress Avenue, between Williams Road and Moorpark Avenue

Class III bike routes are planned for:

- Payne Avenue, between Winchester Boulevard and Greenbriar Avenue
- Greenbriar Avenue, between Payne Avenue and Westfield Avenue
- Westfield Avenue, between Greenbriar Avenue and Daniel Way

Transit Facility Improvements

The Envision 2040 General Plan identifies the following goals in regard to public transit:

- Pursue development of BRT, bus, shuttle, and fixed guideway services on designated streets and connections to major destinations.
- Ensure that roadways designated as Grand Boulevards adequately accommodate transit vehicle circulation and transit stops. Prioritize bus mobility along Stevens Creek Boulevard.

Winchester Boulevard between Moorpark Avenue and Impala Drive has been designated as a Grand Boulevard within the Envision 2040 General Plan. Grand Boulevards are intended to serve as major transportation corridors with priority given to public transit. Given that the project fronts Winchester Boulevard, the project shall be required to implement the following Grand Boulevard design principles:

- Provide a minimum 15 feet sidewalk width along its frontage on Winchester Boulevard
- Minimize driveway cuts to minimize transit delay
- Provide enhanced shelters for transit services

In addition, as a Grand Boulevard it is envisioned that Winchester Boulevard could potentially be included in the VTA Bus Rapid Transit (BRT) System. However, there are no plans at this time for a BRT line on Winchester.

There is a BRT line planned for the West San Carlos Street/Stevens Creek Boulevard corridor. The BRT will run on Stevens Creek Boulevard. Two BRT infrastructure solutions have been proposed: a single reversible transit-only lane between Winchester and MacArthur; and a dual-lane, transit-only overhead viaduct between Henry and MacArthur. The former option would include a center passing lane through the station loading areas, while the latter would include an aerial station.

The Stevens Creek Boulevard corridor serves as the primary access point to major retail/commercial destinations along Stevens Creek Boulevard and access to the area from the regional freeways of I-280 and I-880 is limited to their interchanges with Stevens Creek Boulevard. The proposed center lane BRT will require the removal of one travel lane in each direction of travel along a segment of Stevens Creek Boulevard between Winchester Boulevard and I-880 that is already congested. The removal of vehicular capacity along the primary travel corridor will result in a significant increase in congestion on the segment. Therefore, it is recommended that future BRT service along Stevens Creek Boulevard between Winchester Boulevard and I-880 be accommodated within the existing travel lanes.

The West San Carlos Street/Stevens Creek Boulevard BRT is in only the preliminary stages of its environmental review and there is no identified schedule for its completion.

Parking***Vehicle Parking***

Based on the City's parking requirements, the project is required to provide a total of 147 off-street parking spaces. The project is located in the Winchester Urban Village. The Urban Village Overlay

allows for a 20 percent reduction in parking with the implementation of a Transportation Demand Management (TDM) plan. With the 20 percent reduction, the required parking would be reduced to 118 spaces. The project is proposing a total of 119 parking spaces, which would meet the City’s parking requirements. The City has notified the applicant that they will not support a reduction in parking of greater than 20 percent due to the on-street parking issues discussed in the following section. The project will be required to submit and have approved by the City its TDM program for a maximum 20 percent reduction in off-street parking.

Surrounding On-Street Parking

The project site is located just outside the perimeter of the Cadillac Residential Parking Program (RPP) zone, where a permit is required to use on-street parking from 10:00 PM to 6:00 AM every day except on holidays. In order to obtain a parking permit, the applicant must live in or own a residential property or operate a business in a parking permit zone. Generally, this means that the residence or business must be located on the same side of the street and block face where permit parking signs are posted.

The maximum parking demand for the project during the 10:00 PM to 6:00 AM period when the RPP is enforced, would be approximately 70 vehicles. Therefore, the proposed 119 on-site spaces would be adequate to serve the project’s parking demand during the time period when the RPP is enforced.

However, based on the survey data, the peak daily parking demand for the project would occur between the hours of 2:00 pm and 3:00 pm. Therefore, a parking count of Cadillac and Impala Drives was conducted on Wednesday May 30, 2018 from 1:00 PM to 2:00 PM to determine the availability of on-street parking during the project’s peak parking demand period. The parking counts indicate that on-street parking on Cadillac and Impala Drives, between Winchester Boulevard and Eden Avenue, is very limited and would not be adequate to serve the project’s parking demand that may not be met by the provided on-site parking. In addition, the parking demand for the project would exceed the provided on-site parking between the hours of 10:00 AM and 8:00 PM.

With the implementation of the required TDM plan, as described below, the project will provide adequate parking spaces on-site to satisfy its parking demand and will not have an effect on the Cadillac RPP.

Transportation Demand Management

In order to be granted a 20 percent reduction in required off-street parking per the Winchester Urban Village Plan, the project will be required to implement a TDM program with measures that will reduce the required on-site parking for the proposed project. The City has notified the applicant that they will not support a reduction in parking of greater than 20 percent due to the on-street parking issues. Therefore, the project will be required to implement TDM measures that result in a reduction in parking demand of no more than 20 percent. The project will be required to submit and have approved by the City its TDM program for a maximum 20 percent reduction in off-street parking.

Bicycle Parking

The City’s bicycle parking requirements for each of the project components (Section 20.90.060 Tables 20-190 and 20-210) are as follows: 1 parking space per 4 residential units, 1 parking space per 4,000 s.f. of office floor area, and 1 parking space per 3,000 s.f. of retail floor area. Based on these standard parking requirements, the project is required to provide 19 off-street bicycle parking spaces. The project site plan indicates that two bicycle storage rooms will be located within the ground level of the parking garage. The storage rooms are shown to provide space for a total of 48 bicycles. The proposed bicycle parking on-site will exceed the City’s requirements and encourage the use of non-auto modes of travel and minimize the demand for on-site parking.

Effects on Surrounding Residential Streets

The proposed project site is adjacent to three major thoroughfares, Winchester Boulevard, Hamilton Avenue, and Payne Avenue. As proposed, direct access to the project site would be provided by a driveway on Cadillac Drive. It is estimated that the majority of the project traffic would utilize the major thoroughfares for travel. However, some project traffic could utilize Eden Avenue and Cadillac Drive for travel between the project site and other nearby destinations, such as schools, parks, shopping centers, and others. For this reason, an evaluation of the effects of project traffic along Eden Avenue and Cadillac Drive was completed. The evaluation consists of a roadway segment analysis to quantify the potential change in traffic volumes along the study roadway segments as a result of the proposed project. For the evaluation, the existing and projected daily traffic volumes with the project along the study roadway segments were compared to acceptable volume thresholds for each roadway segment to determine if the projected change in traffic volume would be significant.

Based on the characteristics of the streets, the traffic count data, and the estimated project traffic, the following conclusions can be drawn:

- The added project trips to each of the studied street segments constitute a four percent or less increase from the existing volumes.
- Speeds along Cadillac Drive and Eden Avenue exceed the posted speed by less than 5 mph. Speeds within 5 mph of the posted speed limits are considered reasonable. Therefore, based on the speed surveys, it can be concluded that there is not an obvious speeding issue along these study roadway segments, and the posted speed limits are adequate.

**Table ES 1
Intersection Level of Service Summary**

Int. #	Intersection	Jurisdiction	LOS Standard	Peak Hour	Count Date	Existing Plus Project				Background Plus Project							
						Existing Delay ¹	LOS	Delay ¹	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Background Delay ¹	LOS	Delay	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	Winchester Boulevard and David Avenue/Williamsburg Drive	San Jose	D	AM	10/26/16	21.7	C	21.8	C	0.0	0.001	23.8	C	24.1	C	0.1	0.001
				PM	10/26/16	20.1	C	20.4	C	-0.1	0.001	20.5	C	20.8	C	0.6	0.008
5	Winchester Boulevard and Rosemary Lane ² <i>(unsignalized)</i>	Campbell	E	AM	04/24/18	28.3	D	29.0	D	N/A	N/A	12.0	B	12.0	B	N/A	N/A
				PM	04/24/18	41.7	E	43.0	E	N/A	N/A	11.7	B	11.7	B	N/A	N/A
6	Winchester Boulevard and Hamilton Avenue *	CMP	E	AM	04/24/18	40.0	D	40.1	D	0.1	0.003	41.2	D	41.3	D	0.1	0.004
				PM	12/01/16	47.8	D	47.8	D	0.1	0.004	49.4	D	49.5	D	0.2	0.005

* Denotes CMP Intersection

¹The reported delay and corresponding level of service for signalized intersections represents the average delay for all approaches at the intersection.

The reported delay and corresponding level of service for two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay.

²The reported delay and corresponding level of service at under background and background plus project conditions reflect right turns only at this intersection due to the Winchester Boulevard Complete Street improvements.

1. Introduction

This report presents the results of the traffic impact analysis conducted for the proposed development located at 1495 S. Winchester Boulevard, at the northwest corner of the Winchester Boulevard and Cadillac Drive intersection, within a designated Urban Village (Winchester Boulevard). According to the Envision San Jose 2040 General Plan, the Urban Village strategy fosters:

- Mixed residential and employment activities that are attractive to an innovative workforce
- Revitalization of underutilized properties that have access to existing infrastructure
- Densities that support transit use, bicycling, and walking
- High-quality urban design

The proposed development would consist of the replacement of a 1,300-s.f. building on the project site with 46 residential units, 7,000 s.f. of retail space, and 12,700 s.f. of office space. The project would be supported by an on-site parking structure with access taken from a driveway on Cadillac Drive. The project site location and the surrounding study area are shown on Figure 1. The project site plan is shown on Figure 2.

Scope of Study

The purpose of the study is to identify the potential traffic impacts related to the proposed project. The potential impacts were evaluated following the standards and methodologies set forth by the Cities of San Jose and Campbell and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the County Congestion Management Program (CMP).

The study includes an analysis of AM and PM peak-hour traffic conditions for two signalized intersections and four unsignalized intersections. The study intersections were selected based upon the estimated number of project trips that are projected to be added through the intersections (10 or more trips per lane per hour). Any intersections outside of the study area to which the project would not add 10 or more trips per lane per hour, were not studied because the addition of project traffic would not be a sufficient amount to result in the degradation of intersection levels of service. The study also includes an operations analysis, based on vehicle-storage requirements at select intersections and a review of the proposed site access and on-site circulation. An analysis of freeway segments was not performed because the proposed project would not add traffic equal to at least one percent of capacity of any freeway segment. However, per CMP guidelines, the traffic study includes an evaluation to document the determination that a freeway level of service analysis is not required. The study intersections are identified below.

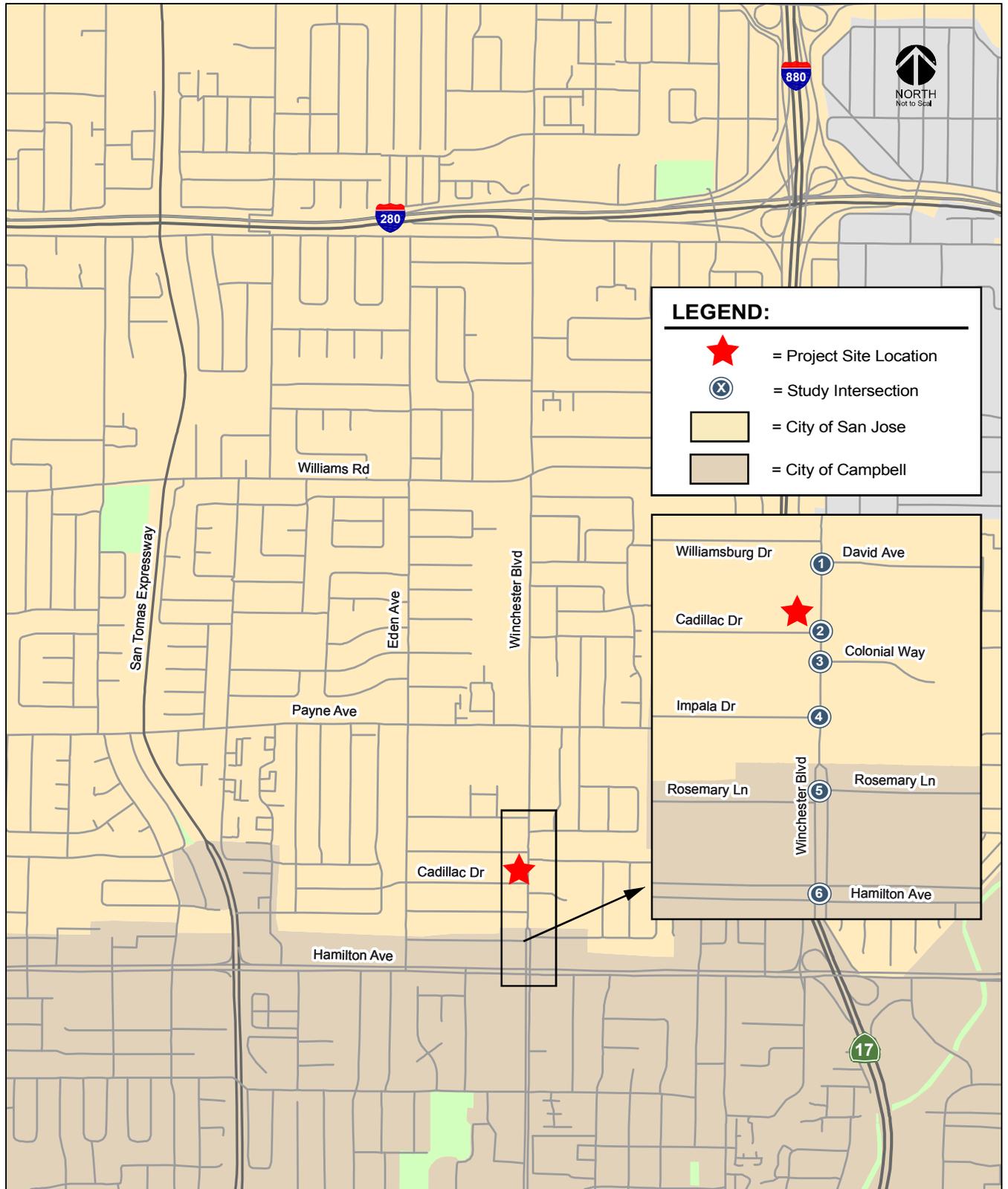


Figure 1
Site Location and Study Intersections

City of San Jose Study Intersections

- 1. Winchester Boulevard and David Avenue/Williamsburg Drive
- 2. Winchester Boulevard and Cadillac Drive (*unsignalized*)
- 3. Winchester Boulevard and Colonial Way (*unsignalized*)
- 4. Winchester Boulevard and Impala Drive (*unsignalized*)

City of Campbell Study Intersections

- 5. Winchester Boulevard and Rosemary Lane (*unsignalized*)
- 6. Winchester Boulevard and Hamilton Avenue *

*Denotes CMP Intersection

Traffic conditions at all of 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:

- Scenario 1: Existing Conditions.** Existing AM and PM peak hour traffic volumes at all study intersections were obtained from the City of San Jose, the 2016 CMP Annual Monitoring Report, and supplemented with new manual turning-movement counts collected in April 2018.
- Scenario 2: Existing Plus Project Conditions.** Existing plus project peak hour traffic volumes were estimated by adding to existing traffic volumes the additional traffic generated by the project. Existing plus project conditions were evaluated relative to existing conditions in order to determine the effects the project would have on the existing roadway network.
- Scenario 3: 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 approved project traffic was provided by the City of San Jose in the form of the Approved Trips Inventory (ATI) and approved project list by the City of Campbell. Background conditions represent the baseline conditions to which project conditions are compared for the purpose of determining project impacts.
- Scenario 4: Background Plus Project Conditions.** Projected peak hour traffic volumes with the project were estimated by adding to background traffic volumes the additional traffic generated by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts.

Methodology

This section presents the methods used to determine the traffic conditions for each scenario described above. It includes descriptions of the data requirements, the analysis methodologies, and the applicable level of service standards.

Data Requirements

The data required for the analysis were obtained from previous traffic studies, new traffic counts, the Cities of San Jose and Campbell, 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
- a list of approved projects

Analysis Methodologies and Level of Service Standards

Traffic conditions at the study intersections were evaluated using level of service (LOS) and assessment of signal warrants. *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. Signal warrant checks are used to evaluate the need to signalize an unsignalized intersection. The analysis methods are described below.

City of San Jose Signalized Intersections

The signalized intersection of Winchester Boulevard and David Avenue/Williamsburg Drive is located within the City of San Jose and is subject to the City of San Jose 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, City of San Jose's methodologies employs the CMP defaults values for the analysis parameters. City of San Jose's level of service standard for intersections is LOS D or better. The correlation between average delay and level of service is shown in Table 1.

I-280/Winchester Boulevard Interchange Area Transportation Development Policy

The I-280/Winchester Boulevard interchange area Transportation Development Policy (TDP) provides for additional capacity in the immediate area of the I-880/Stevens Creek Boulevard and I-280/Winchester Boulevard interchanges. The TDP was completed for the purpose of managing existing traffic congestion in the I-880/Stevens Creek and I-280/Winchester interchange areas as well as provide additional traffic capacity to accommodate future development such as the proposed project. The I-880/Stevens Creek and I-280/Winchester interchanges serve as the primary access points to regional freeway facilities in the project area. As such, the Stevens Creek Boulevard and Winchester Boulevard corridors that serve the I-880/Stevens Creek and I-280/Winchester interchanges currently experience traffic congestion during the peak commute hours. The corridors include two Protected Intersections that are currently and projected to continue to operate well below the City's standard Level of Service Policy. There are no further vehicular capacity improvements available at the intersections.

The TDP provides partial funding, via a traffic fee imposed on proposed development, for the implementation of a new westbound off-ramp from I-280 to Winchester Boulevard to reduce traffic congestion at the I-880/Stevens Creek and Stevens Creek Boulevard corridors. The traffic fee is based on the estimated trips to be added to the new westbound off-ramp from I-280 to Winchester Boulevard by each individual development.

Table 1
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

Sources: Transportation Research Board, *2000 Highway Capacity Manual. Traffic Level of Service Analysis Guidelines*, Santa Clara County Transportation Authority Congestion Management Program, June 2003.

CMP Signalized Intersections

The signalized intersection of Winchester Boulevard and Hamilton Avenue is located within the City of Campbell. However, it is a CMP designated intersection and subject to CMP LOS standards. Since TRAFFIX also is the designated level of service methodology for the CMP intersections, the CMP study intersections are not analyzed separately, but rather are among the signalized intersections analyzed using TRAFFIX. The only difference between the Cities’ of San Jose and Campbell and CMP’s analyses is that project impacts are determined on the basis of different level of service standards – the CMP level of service standard for signalized intersections is LOS E or better.

Unsignalized Intersections

The City of San Jose does not have a LOS standard for unsignalized intersections. Therefore, only the signal warrant assessment is required at unsignalized intersections located within the City of San Jose. Unsignalized intersections in the City of Campbell are evaluated based on level of service and signal warrant checks.

Level of Service

The methodology used to determine the level of service for unsignalized intersections is also TRAFFIX and the 2000 HCM methodology for unsignalized intersection analysis. This method is applicable for both two-way and all-way stop-controlled intersections. For the analysis of stop-controlled intersections, the 2000 HCM methodology evaluates intersection operations on the basis of average control delay time for all vehicles on the stop-controlled approaches. For the purpose of reporting level of service for one- and two-way stop-controlled intersections, the delay and corresponding level of service for the stop-controlled minor street approach with the highest delay is reported. For all-way stop-controlled intersections, the reported average delay and corresponding level of service is the average for all approaches at the intersection. The City of Campbell uses a minimum acceptable level of service standard of LOS E for unsignalized intersections. The correlation between average control delay and level of service for unsignalized intersections is shown in Table 2.

**Table 2
Unsignalized Intersection Level of Service Definitions Based on Control Delay**

Level of Service	Description	Average Control Delay per Vehicle (sec.)
A	Operations with very low delays occurring with favorable progression.	up to 10.0
B	Operations with low delays occurring with good progression.	10.1 to 15.0
C	Operations with average delays resulting from fair progression.	15.1 to 25.0
D	Operation with longer delays due to a combination of unfavorable progression of high V/C ratios.	25.1 to 35.0
E	Operation with high delay values indicating poor progression and high V/C ratios. This is considered to be the limited of acceptable delay.	35.1 to 50.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation and poor progression.	Greater than 50.0

Source: Transportation Research Board, 2000 Highway Capacity Manual, (Washington, D.C., 2000).

Signal Warrants

The level of service analysis at unsignalized intersections is supplemented with an assessment of the need for signalization of the intersection. The need for signalization of unsignalized intersections is assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the California Manual on Uniform Traffic Control Devices for Streets and Highways (CA MUTCD), Part 4, Highway Traffic Signals, 2014. This method makes no evaluation of intersection level of service, but simply provides an indication whether vehicular peak hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. The decision to install a traffic signal should not be based purely on the warrants alone. Instead, the installation

of a signal should be considered, and further analysis performed when one or more of the warrants are met. Additionally, engineering judgment is exercised on a case-by-case basis to evaluate the effect a traffic signal will have on certain types of accidents and traffic conditions at the subject intersection as well as at adjacent intersections. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Other options such as traffic control devices, signage, or geometric changes may be preferable based on existing field conditions.

Report Organization

The remainder of this report is divided into six chapters. Chapter 2 describes existing conditions in terms of the existing roadway network, transit service, and existing bicycle and pedestrian facilities. Chapter 3 describes the method used to estimate project traffic and the resulting traffic conditions expected under existing plus project conditions. Chapter 4 presents the intersection levels of service under background conditions with the addition of traffic from approved development projects. Chapter 5 presents traffic conditions and potential project impacts and recommended mitigation measures under background plus project conditions. Chapter 6 presents the analysis of other transportation related issues, including site access and on-site circulation, and parking. Chapter 7 presents the conclusions of the traffic impact analysis.

2. Existing Conditions

This chapter describes the existing conditions for all of the major transportation facilities in the vicinity of the site, including the roadway network, transit service, and bicycle and pedestrian facilities. Also included are the existing levels of service of the key intersections in the study area.

Existing Roadway Network

Regional access to the project site is provided via SR 17 and I-280. These facilities are described below.

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

I-280 is an eight-lane freeway in the vicinity of the site. It extends northwest to San Francisco and east to King Road in San Jose, at which point it makes a transition to I-680 to Oakland. North of I-880, I-280 has high occupancy vehicle (HOV) lanes in both directions. Access to and from northbound I-280 to the site is provided via its interchange with Winchester Boulevard and via SR 17 to Hamilton Avenue.

Local access to the site is provided by Winchester Boulevard, Moorpark Avenue, Williams Road, Payne Avenue, Hamilton Avenue, San Tomas Expressway, Eden Avenue, and Cadillac Drive. These roadways are described below.

Winchester Boulevard is a divided six-lane north-south roadway that runs from Los Gatos to Lincoln Street in Santa Clara. Winchester Boulevard provides access to the project site via Cadillac Drive.

Moorpark Avenue is a four-lane east-west roadway that runs from Lawrence Expressway to Bascom Avenue. East of Bascom Avenue, Moorpark Avenue makes a transition into a three-lane one-way roadway to Leigh Avenue. Moorpark Avenue provides access to the project site via Winchester Boulevard.

Williams Road is a two-lane east-west roadway in the vicinity of the project site. It extends east from Moorpark Avenue to South Daniel Way, just east of Winchester Boulevard. Williams Road provides access to the project site via Winchester Boulevard.

Payne Avenue is a two-lane east-west roadway in the vicinity of the project site. It extends east from Saratoga Avenue to Almarida Drive, just east of Winchester Boulevard. Payne Avenue provides access to the project site via Winchester Boulevard.

Hamilton Avenue is a six-lane east-west roadway between Marathon Drive and Leigh Avenue. West of Marathon Drive, Hamilton Avenue narrows to a four-lane roadway and extends west to Campbell

Avenue. East of Leigh Avenue, Hamilton Avenue narrows to a four-lane roadway and extends west to Meridian Avenue. Hamilton Avenue provides access to the project site via Winchester Boulevard.

San Tomas Expressway is a north-south expressway that begins at its interchange with US 101 and extends southward through Santa Clara and San Jose and into Campbell, where it transitions into Camden Avenue at SR 17. San Tomas Expressway provides access to and from the project site via Williams Road, Payne Avenue, and Hamilton Avenue.

Eden Avenue is a two-lane north-south roadway in the vicinity of the project site. It extends north from Hamilton Avenue to Moorpark Avenue. Eden Avenue provides access to the project site via Cadillac Drive.

Cadillac Drive is a two-lane east-west roadway in the vicinity of the project site. It extends west from Winchester Boulevard to Maria Way. Direct access to the project site is provided via a driveway along Cadillac Drive.

Existing Bicycle and Pedestrian Facilities

Class II Bikeway (Bike Lane). Class II bikeways are striped bike lanes on roadways that are marked by signage and pavement markings. Within the vicinity of the project site, striped bike lanes are present on the following roadway segments.

- Winchester Boulevard, between Hamilton Avenue and Payne Avenue
- Hamilton Avenue, west of SR 17
- Payne Avenue, west of Winchester Boulevard
- Williams Road, west of Baywood Avenue
- Moorpark Avenue, west of Thorton Way
- Winchester Boulevard, between Tisch Way and Stevens Creek Boulevard

Class III Bikeway (Bike Route). Class III bikeways are bike routes and only have signs to help guide bicyclists on recommended routes to certain locations. In the vicinity of the project site, the following roadway segments are designated as bike routes.

- Eden Avenue, between Impala Drive and Hamilton Avenue
- Milton Avenue, south of Hamilton Avenue
- Darryl Drive, between Hamilton Avenue and Payne Avenue
- Monroe Street, between Moorpark Avenue and Williams Road
- Williams Road, between Baywood Avenue and Daniel Way
- Daniel Way, between Williams Road and Westfield Avenue
- Thorton Way, between Moorpark Avenue and Downing Avenue
- Downing Avenue, east of SR 17

Although none of the residential streets near the project site (i.e., Cadillac Drive and Eden Avenue) provide bike lanes or are designated as bike routes, due to their low traffic volumes, many of them are conducive to bicycle usage. The existing bicycle facilities are shown in Figure 3.

The locations of three pedestrian footbridge crossings over freeways in vicinity of the project site are listed below and shown in Figure 3.

- SR 17 pedestrian footbridge connecting Westfield Avenue and Downing Avenue
- I-280 pedestrian footbridge connecting Moorpark Avenue and Cypress Avenue
- I-280 pedestrian footbridge connecting Moorpark Avenue and Tisch Way

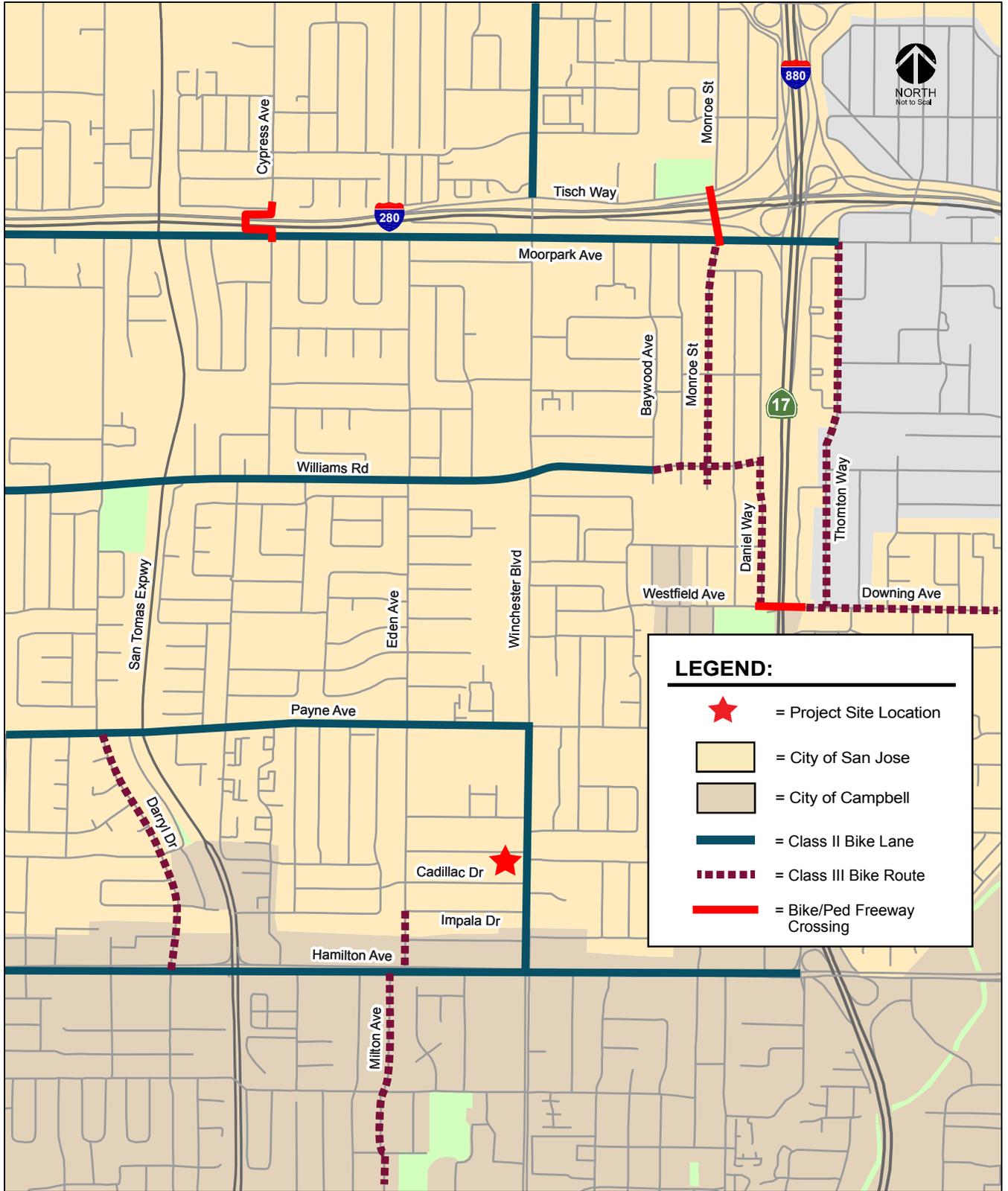


Figure 3
Existing Bicycle Facilities

Controlled crosswalks across Winchester Boulevard are provided near the project site at the signalized Williamsburg Drive and Hamilton Avenue intersections with Winchester Boulevard. Overall, the existing network of sidewalks and crosswalks provides good connectivity and provides pedestrians with safe routes to transit services and other points of interest in the area.

Existing Transit Services

Existing transit service to the study area is provided by the VTA. The VTA transit services are described below and shown on Figure 4.

VTA Bus Services

The project site is served directly by one bus route (Local Route 60) with a stop along its frontage on Winchester Boulevard.

Local Route 25 runs from the De Anza College to Alum Rock Transit Center and operates from 5:00 AM to 12:00 AM on weekdays with 20- to 30-minute headways during commute periods. Route 25 operates along Winchester Boulevard and Williams Road in the project area. The closest bus stop is located approximately $\frac{3}{4}$ of a mile from the project site at the intersection of Winchester Boulevard and Williams Road.

Local Route 60 runs from the Winchester Transit Center in Campbell to Great America and operates from 5:00 AM to 11:00 PM on weekdays with 15- to 20-minute headways during commute periods. Route 60 operates along Winchester Boulevard in the project area. The closest bus stop to the project site is located along the project's frontage on Winchester Boulevard.

Local Route 82 runs from the Westgate Shopping Mall to Downtown San Jose and operates from 6:00 AM to 9:30 PM on weekdays with 30-minute headways during commute periods. The closest bus stop is located approximately $\frac{1}{4}$ of a mile from the project site at the intersection of Winchester Boulevard and Hamilton Avenue.

Express Route 101 runs from the Camden Avenue near Highway 85 to Palto Alto and operates two northbound trips during the morning commute period and two southbound trips during the afternoon commute period with 50- to 60-minute headways. The closest bus stop is located approximately $\frac{1}{4}$ of a mile from the project site at the intersection of Winchester Boulevard and Hamilton Avenue.

Limited-Stop Route 328 runs from the Almaden Expressway near Camden Avenue to Lockheed Martin/Moffett Industrial Park and operates two northbound trips during the morning commute period and two southbound trips during the afternoon commute period with 60- to 90-minute headways. The closest bus stop is located approximately $\frac{3}{4}$ of a mile from the project site at the intersection of San Tomas Expressway and Hamilton Avenue.

Limited-Stop Route 330 runs from the Almaden Expressway near Camden Avenue to Tasman Drive in Milpitas and operates four northbound trips during the morning commute period and four southbound trips during the afternoon commute period with 30-minute headways. The closest bus stop is located approximately $\frac{3}{4}$ of a mile from the project site at the intersection of San Tomas Expressway and Hamilton Avenue.

VTA Light Rail Transit (LRT) Service

LRT Route 902 runs from the Winchester Transit Center in Campbell to Mountain View and operates from 5:00 AM to 12:00 AM with 15-minute headways during the peak commute periods. The closest LRT station is located approximately a mile from the project site at the interchange of SR 17 and Hamilton Avenue.

Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 5.

Existing Traffic Volumes

Existing peak hour traffic volumes at all study intersections were obtained from the City of San Jose, the 2016 CMP Annual Monitoring Report, and supplemented with new manual turning-movement counts collected in April 2018. The existing peak-hour intersection volumes are shown on Figure 6. Intersection turning-movement counts conducted for this analysis are presented in Appendix A. Peak hour intersection turning movement volumes for all intersections and study scenarios are tabulated in Appendix B.

Existing Intersection Level of Service Analysis

The results of the intersection level of service analysis under existing conditions are summarized in Table 3. The level of service calculation sheets are included in Appendix C.

City of San Jose Intersection Analysis

The results show that, measured against the City of San Jose level of service standard, the intersection of Winchester Boulevard and David Avenue/Williamsburg Drive currently operates at an acceptable LOS C during both the AM and PM peak hours under existing conditions.

City of Campbell Intersection Analysis

The results show that, measured against the City of Campbell level of service standard, the intersection of Winchester Boulevard and Rosemary Lane currently operates at an acceptable LOS E or better during both the AM and PM peak hours under existing conditions. Additionally, peak-hour traffic signal warrant checks indicate that the existing traffic volumes at this intersection would fall below the thresholds that warrant signalization under existing conditions.

CMP Intersection Analysis

The results show that, measured against the CMP level of service standard, the intersection of Winchester Boulevard and Hamilton Avenue currently operates at an acceptable LOS D during both the AM and PM peak hours under existing conditions.

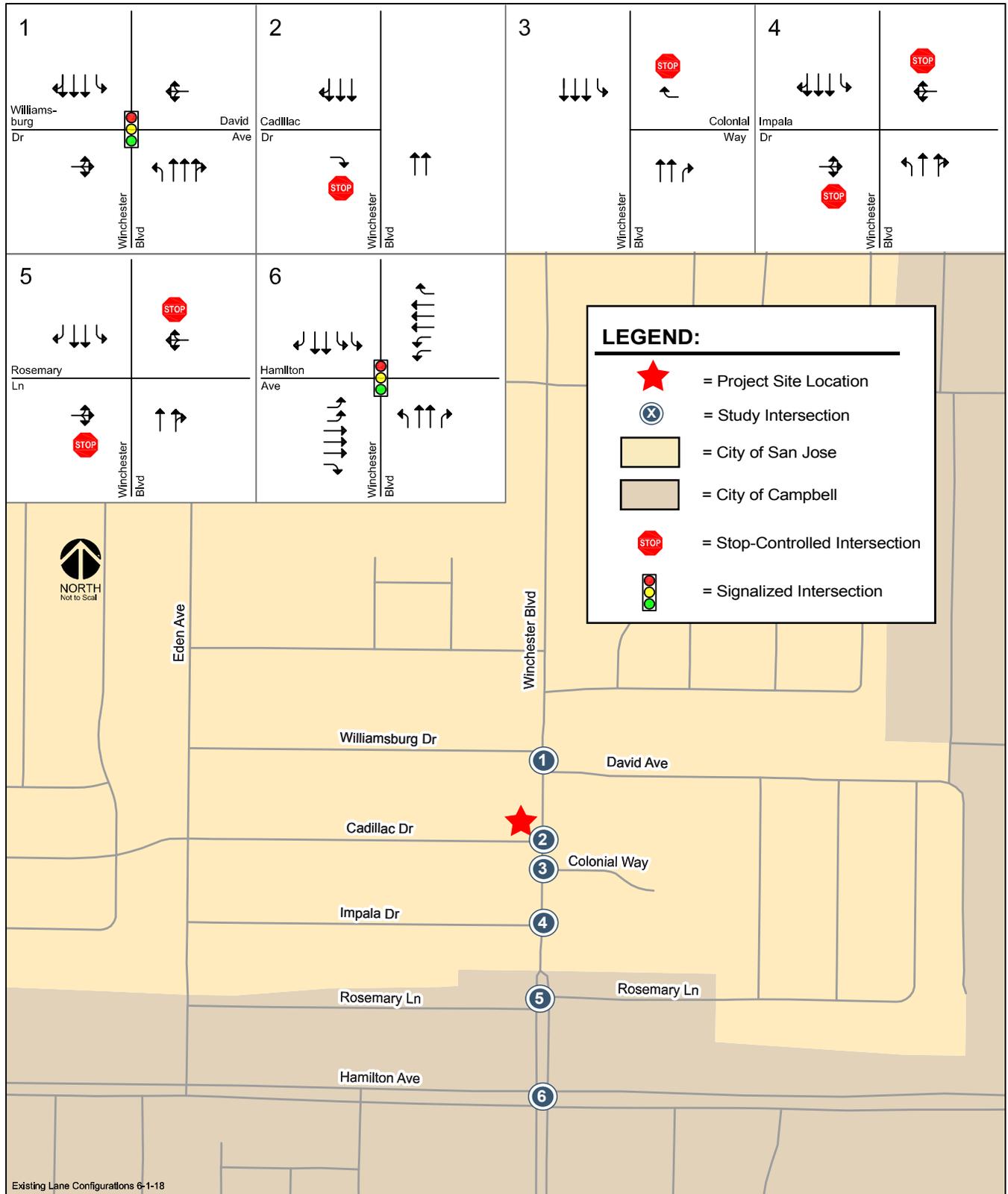


Figure 5
Existing Lane Configurations

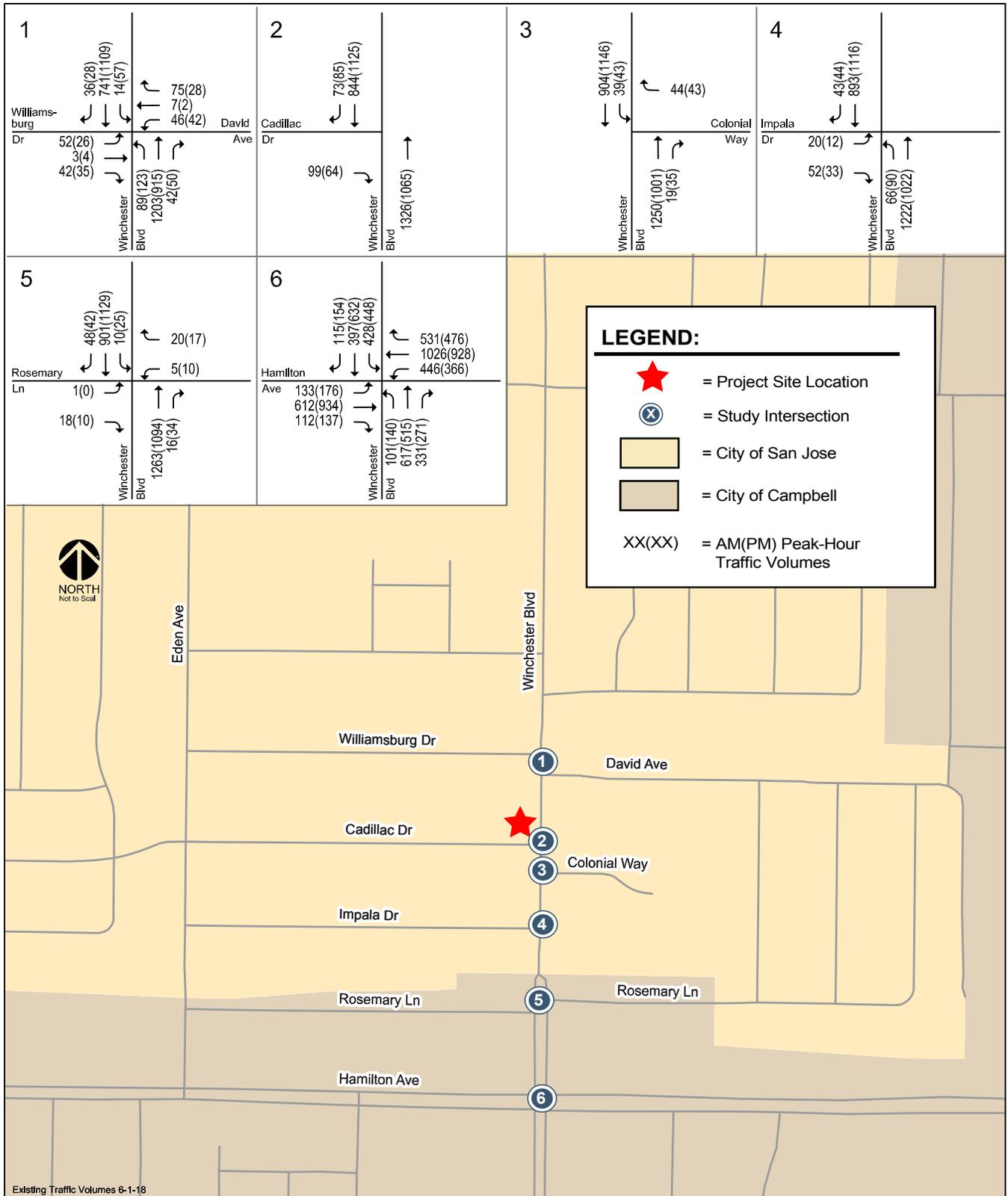


Figure 6
Existing Traffic Volumes

**Table 3
Existing Intersection Levels of Service**

Int. #	Intersection	Jurisdiction	LOS Standard	Peak Hour	Count Date	Delay ¹	LOS
1	Winchester Boulevard and David Avenue/Williamsburg Drive	San Jose	D	AM PM	10/26/16 10/26/16	21.7 20.1	C C
5	Winchester Boulevard and Rosemary Lane (<i>unsignalized</i>)	Campbell	E	AM PM	04/24/18 04/24/18	28.3 41.7	D E
6	Winchester Boulevard and Hamilton Avenue *	CMP	E	AM PM	04/24/18 12/01/16	40.0 47.8	D D

Notes:
 * Denotes CMP Intersection
¹The reported delay and corresponding level of service for signalized intersections represents the average delay for all approaches at the intersection. The reported delay and corresponding level of service for two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay.

Observed Existing Traffic Conditions

Traffic conditions in the field were observed in order to identify existing operational deficiencies and to confirm the accuracy of calculated levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to intersection level of service, and (2) to identify any locations where the level of service calculation does not accurately reflect level of service in the field.

Field observations revealed the following operational problems that may not be reflected in level of service calculations:

During the PM peak hour, the eastbound queue on Hamilton Avenue intermittently extended back from SR 17 to Winchester Boulevard resulting in the southbound left-turn movement unable to proceed during its green phase. This only occurred during a few cycles during the peak 15 minutes of the PM peak hour.

All other study intersections operate without any major operational problems.

3.

Existing Plus Project Conditions

This chapter describes existing traffic conditions with the addition of the traffic that would be generated by the proposed project. Existing plus project traffic conditions could potentially exist if the project was constructed and occupied prior to the other approved projects in the area. It is unlikely that this traffic condition would occur, since other approved projects expected to add traffic to the study area would likely be built and occupied during the time the project is going through the development review and construction process. This scenario describes a less congested traffic condition, since it ignores any potential traffic from prior approvals. Existing plus project conditions also does not include any planned and funded roadway improvements that have not been constructed. Projected traffic volumes based on the trip generation estimates and assignment of project trips were developed using the same methods discussed and presented in Chapter 5.

Existing Plus Project Transportation Network

It is assumed in this analysis that the transportation network under existing plus project conditions would be the same as the existing transportation network.

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, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Based on the ITE trip generation rates and credit for existing uses on the project site, it is estimated that the proposed project would generate an additional 491 daily trips, with 37 trips (20 inbound and 17 outbound) occurring during the AM peak hour and 50 trips (21 inbound and 29 outbound) occurring during the PM peak hour. The trip generation estimates for proposed project are presented in Table 6 in Chapter 5.

Trip Distribution and Assignment

The trip distribution pattern for the proposed project was estimated based on traffic patterns on the surrounding roadway system and on the locations of complementary land uses. Project trip distribution

and assignment are discussed in detail in Chapter 5. A tabular summary of project traffic at each study intersection is contained in Appendix B. Figure 7 shows the assignment of net project traffic under existing plus project conditions on the existing transportation network.

Existing Plus Project Traffic Volumes

Project trips, as represented in the project trip assignment discussed above, were added to existing traffic volumes to obtain existing plus project traffic volumes. The existing plus project traffic volumes are shown on Figure 8. Traffic volumes for all components of traffic are tabulated in Appendix B.

Existing Plus Project Intersection Level of Service Analysis

The results of the intersection level of service analysis under existing plus project conditions are summarized in Table 4. The level of service calculation sheets are included in Appendix C.

City of San Jose Intersection Analysis

The results show that, measured against the City of San Jose level of service standard, the intersection of Winchester Boulevard and David Avenue/Williamsburg Drive is projected operate at an acceptable LOS C during both the AM and PM peak hours under existing plus project conditions.

City of Campbell Intersection Analysis

The results show that, measured against the City of Campbell level of service standard, the intersection of Winchester Boulevard and Rosemary Lane is projected operate at an acceptable LOS E or better during both peak hours under background conditions. Additionally, peak-hour traffic signal warrant checks indicate that the projected traffic volumes at this intersection would fall below the thresholds that warrant signalization under existing plus project conditions.

CMP Intersection Analysis

The results show that, measured against the CMP level of service standard, the intersection of Winchester Boulevard and Hamilton Avenue is projected to operate at an acceptable LOS D during both the AM and PM peak hours under existing plus project conditions.

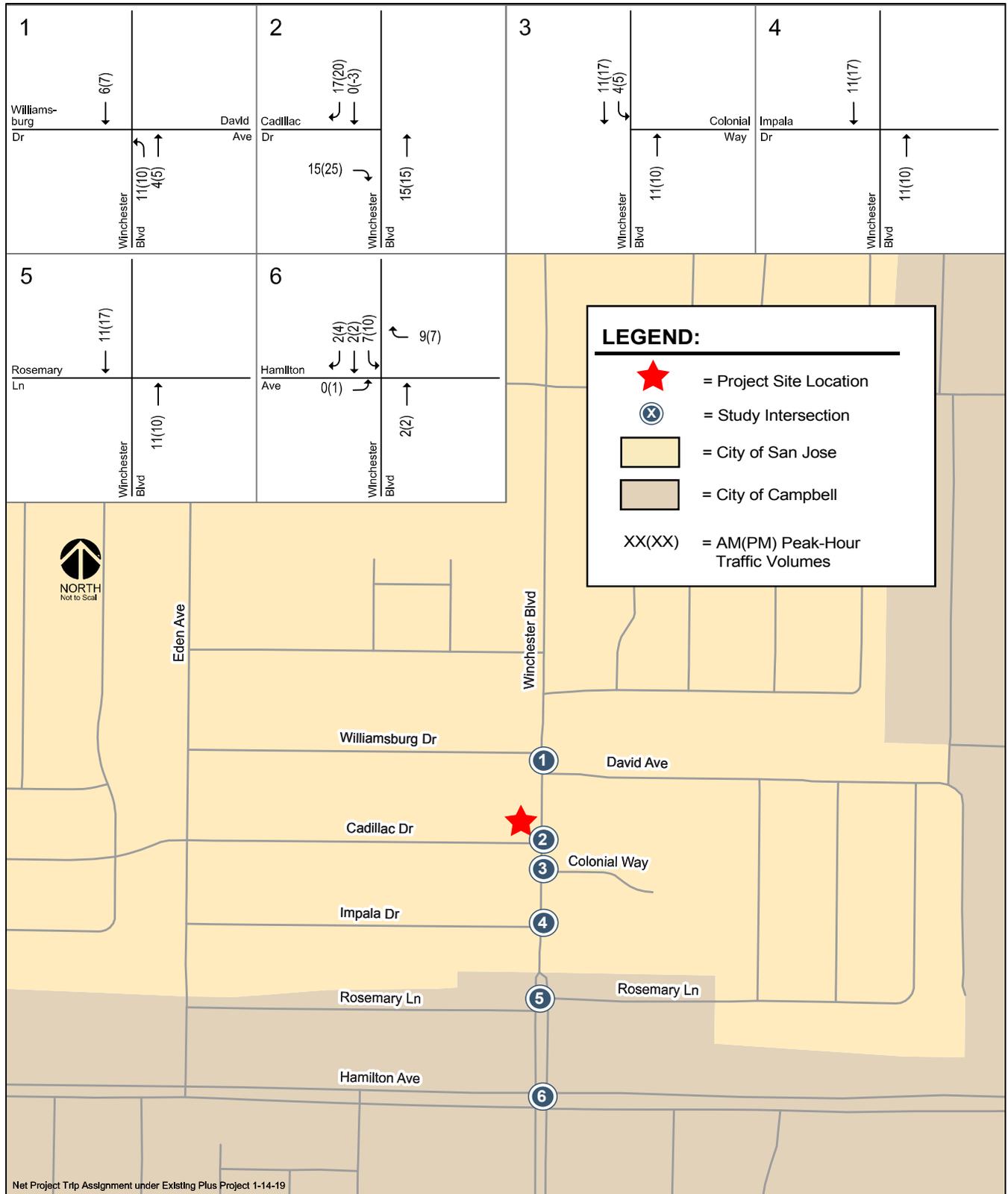


Figure 7
Net Project Trip Assignment Under Existing Plus Project

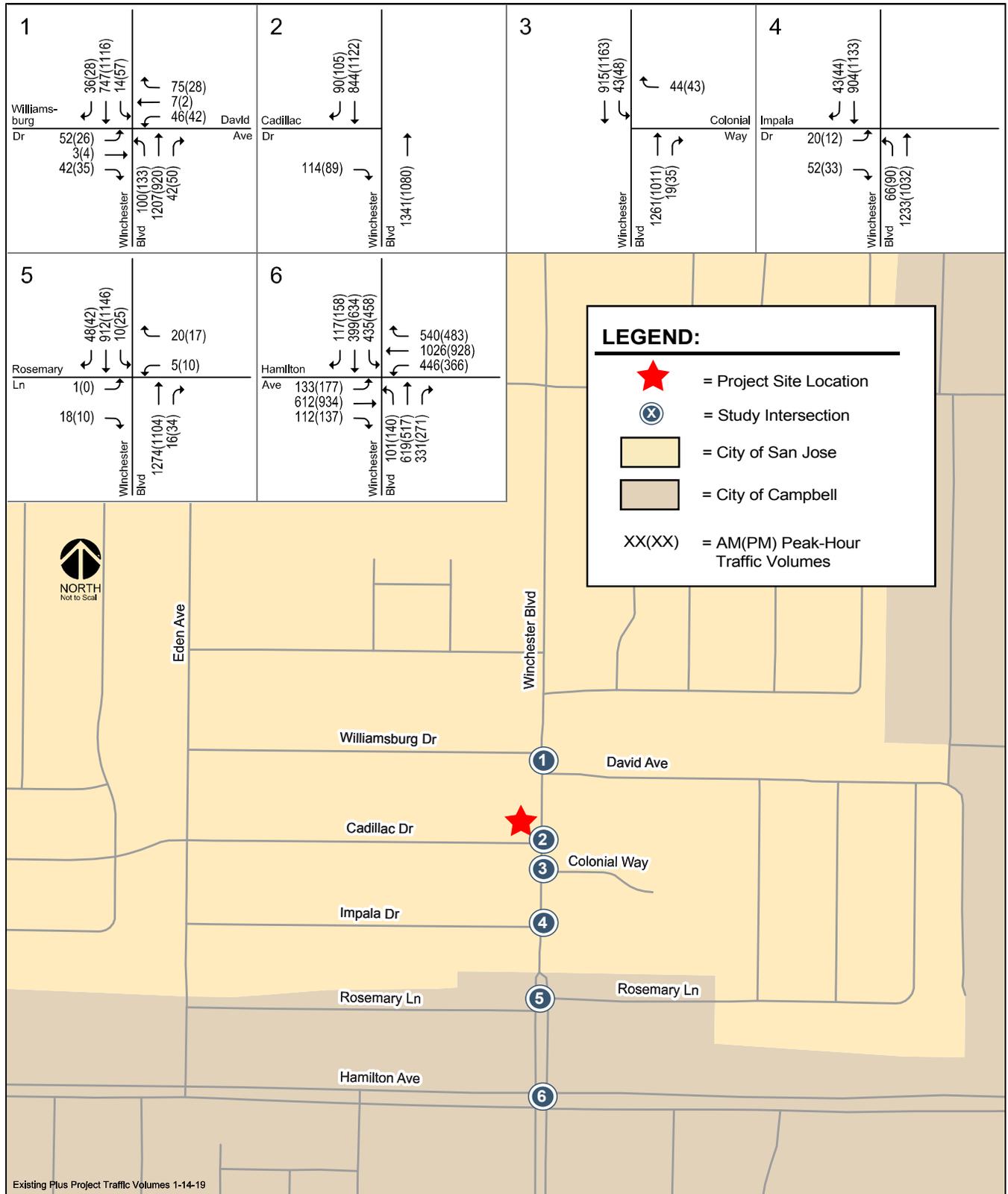


Figure 8
Existing Plus Project Traffic Volumes

**Table 4
Existing Plus Project Intersection Levels of Service**

Int. #	Intersection	Jurisdiction	LOS Standard	Peak Hour	Existing		Existing Plus Project			
					Delay ¹	LOS	Delay ¹	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	Winchester Boulevard and David Avenue/Williamsburg Drive	San Jose	D	AM	21.7	C	21.8	C	0.0	0.001
				PM	20.1	C	20.4	C	-0.1	0.001
5	Winchester Boulevard and Rosemary Lane <i>(unsignalized)</i>	Campbell	E	AM	28.3	D	29.0	D	N/A	N/A
				PM	41.7	E	43.0	E	N/A	N/A
6	Winchester Boulevard and Hamilton Avenue *	CMP	E	AM	40.0	D	40.1	D	0.1	0.003
				PM	47.8	D	47.8	D	0.1	0.004

Notes:

* Denotes CMP Intersection

¹The reported delay and corresponding level of service for signalized intersections represents the average delay for all approaches at the intersection. The reported delay and corresponding level of service for two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay.

4. Background Conditions

This chapter presents background traffic conditions, which are defined as conditions just prior to completion of the proposed project. It describes the planned transportation system, the procedure used to determine background traffic volumes, and the resulting traffic conditions. The background scenario predicts a realistic traffic condition that would occur as approved development gets built and occupied.

Background Transportation Network

It is assumed in this analysis that the transportation network under background conditions would be the same as the existing transportation network with the exception of the planned improvement of Winchester Boulevard to a complete street as described below.

The Winchester Urban Village Plan identifies the improvement of Winchester Boulevard between Hamilton Avenue and I-280 to incorporate complete street design concepts and allow Winchester Boulevard to continue to function as a major arterial for vehicular traffic while also providing people who bike and people who walk with a safer and more comfortable environment. The planned streetscape design includes features of Grand Boulevards and Complete Streets as defined in San José's General Plan and Complete Streets Design Guidelines. The plan line, as provided by the City of San Jose, for Winchester Boulevard in the immediate project area is shown in Figures 9 and 10. The streetscape design plan line identifies the following improvements in the immediate project area:

- Protected bike lanes along both sides of Winchester Boulevard. The bike lanes will be physically separated from vehicle travel lanes by a rain garden.
- At least four vehicular travel lanes and two flex lanes for vehicle travel or parking.
- Construction of a raised median with limited breaks between David Avenue and Hamilton Avenue. Left-turns from Winchester Boulevard to Cadillac Drive, Impala Drive, and Rosemary Lane would be prohibited by the raised median. Left-turns to Colonial Way and Impala Drive would be maintained.
- Modification of the Winchester Boulevard and David Avenue signalized intersection to add a third northbound lane via the conversion of the separate northbound right-turn lane to a shared through and right-turn lane. The crosswalks at the intersection also would be relocated and realigned to provide crosswalks at all four approaches along with signal modifications.

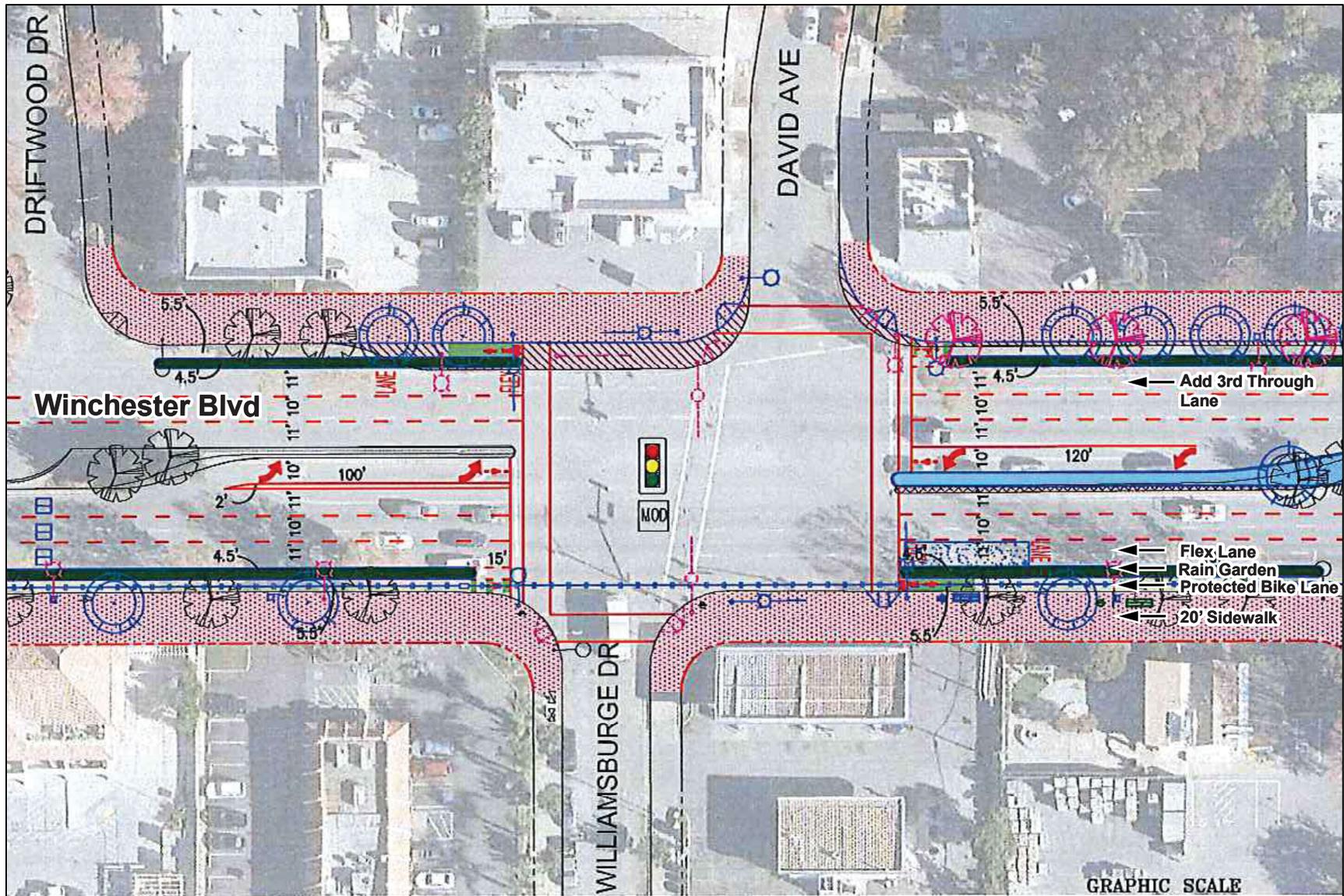


Figure 10
Winchester Boulevard Complete Street Improvements (Project Frontage)

Background Traffic Volumes

Background peak hour traffic volumes were estimated by adding to existing volumes the estimated traffic from approved but not yet constructed developments. The added traffic from approved but not yet constructed developments was obtained from the City of San Jose's Approved Trips Inventory (ATI) database and a list of approved projects provided by the City of Campbell. In addition, existing and approved traffic was reassigned to reflect the Winchester Boulevard complete street improvements as described above. The background traffic scenario predicts a realistic traffic condition that would occur as approved development is built. Background traffic volumes are shown Figure 11. The approved trips and traffic volumes for all components of traffic are tabulated in Appendix B.

City of San Jose Approved Projects

- Santana Row West – 969,051 s.f. of office space and 29,000 s.f. of retail space
- Santana Row Lot 11 – 228,200 s.f. of office space and 30,000 s.f. of restaurant space
- Santana Row Lots 9 and 17 – 510,000 s.f. of office space, a 7-screen movie theater, and 6 hotel rooms
- Valley Fair Expansion – 487,300 s.f. of retail space and a 10-screen movie theater
- North San Jose – 26.7 m.s.f. of industrial space, 1.7 m.s.f. of commercial space, and 50,000 residential units

City of Campbell Approved Projects

- 95 E. Hamilton Avenue – 5,800 s.f. of office space
- Creekside Center – 172,000 s.f. of office space
- Carden Day School – a 4,000-s.f. classroom building allowing an increase in student capacity for a private school from 120 to 150 children
- St. Anton's – 126 apartment units and 39 condo/townhome units
- Dillon Avenue Homes Phase 2 – 59 high-density residential units
- 771 West Hamilton Avenue Starbucks – 1,900-s.f. drive-through café
- 2135-2145 South Winchester Boulevard – 5,400-s.f. retail building
- 2295 South Winchester Boulevard Mixed Use – 16 condos and 3,200 s.f. of retail space
- Pruneyard Expansion – 106,000 s.f. of office space, 18,000 s.f. of retail space, and 30,000 s.f. of fitness facility
- Opa Expansion – 11,614 s.f. of commercial and office space

Background Intersection Level of Service Analysis

The results of the intersection level of service analysis under background conditions are summarized in Table 5. The intersection level of service calculation sheets are included in Appendix C.

City of San Jose Intersection Analysis

The results show that, measured against the City of San Jose level of service standard, the intersection of Winchester Boulevard and David Avenue/Williamsburg Drive is projected operate at an acceptable LOS C or better during both the AM and PM peak hours under background conditions.

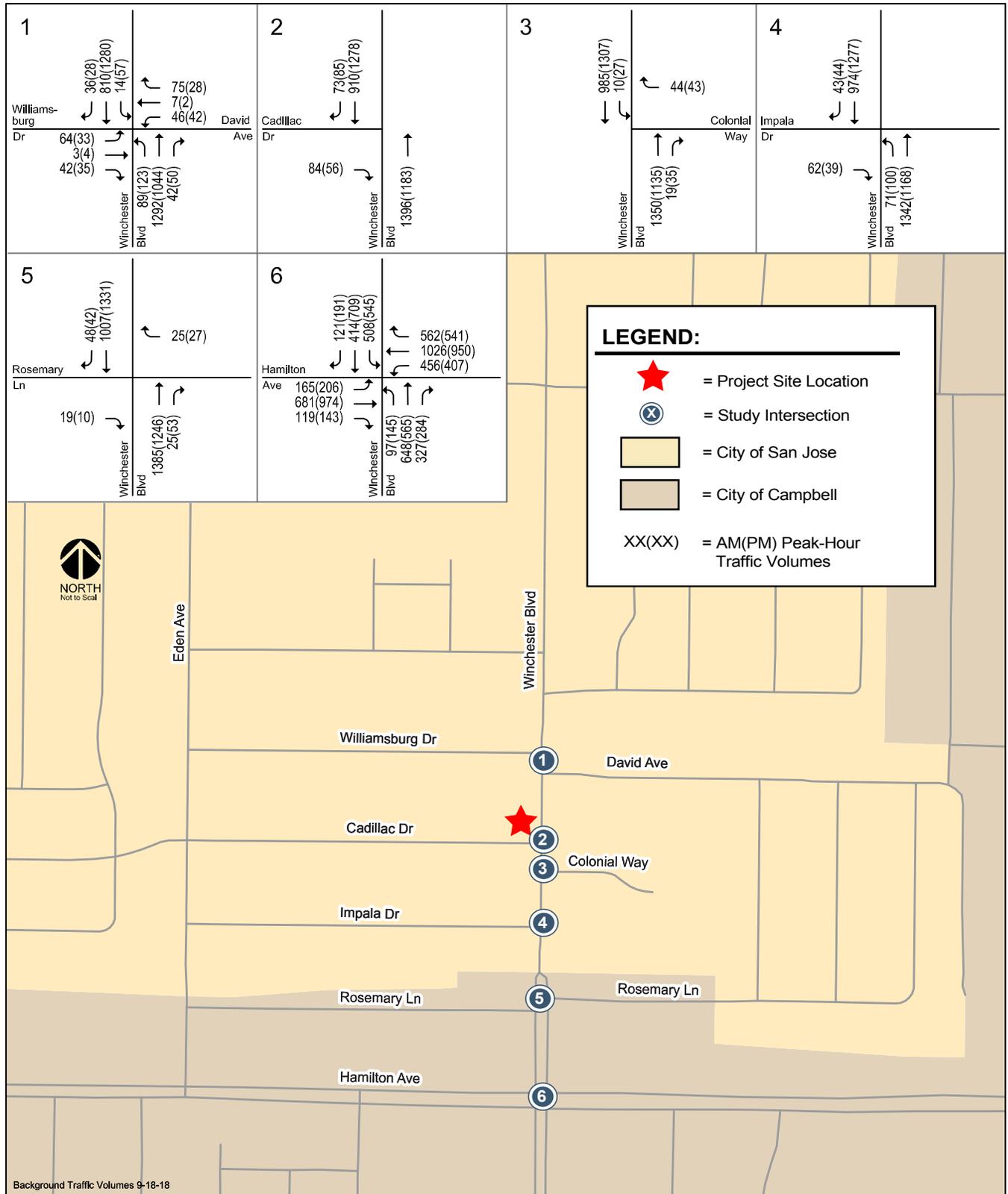


Figure 11
Background Traffic Volumes

**Table 5
Background Intersection Levels of Service**

Int. #	Intersection	Jurisdiction	LOS Standard	Peak Hour	Existing		Background	
					Delay ¹	LOS	Delay ¹	LOS
1	Winchester Boulevard and David Avenue/Williamsburg Drive	San Jose	D	AM	21.7	C	23.8	C
				PM	20.1	C	20.5	C
5	Winchester Boulevard and Rosemary Lane ² (unsignalized)	Campbell	E	AM	28.3	D	12.0	B
				PM	41.7	E	11.7	B
6	Winchester Boulevard and Hamilton Avenue *	CMP	E	AM	40.0	D	41.2	D
				PM	47.8	D	49.4	D

Notes:
 * Denotes CMP Intersection
¹The reported delay and corresponding level of service for signalized intersections represents the average delay for all approaches at the intersection. The reported delay and corresponding level of service for two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay.
²The reported delay and corresponding level of service at under background and background plus project conditions reflect right turns only at this intersection due to the Winchester Boulevard Complete Street improvements.

City of Campbell Intersection Analysis

The results show that, measured against the City of Campbell level of service standard, the intersection of Winchester Boulevard and Rosemary Lane is projected operate at an acceptable LOS B during both the AM and PM peak hours under background conditions. With the implementation of the Winchester Boulevard complete street improvements, both approaches of Rosemary Lane at Winchester Boulevard will be converted to T-intersections and restricted to right-turns only. The reported delay is representative of delay experienced by only the stop-controlled right-turn movements on both approaches of Rosemary Lane.

CMP Intersection Analysis

The results show that, measured against the CMP level of service standard, the intersection of Winchester Boulevard and Hamilton Avenue is projected to operate at an acceptable LOS D during both the AM and PM peak hours under background conditions.

5. Background Plus Project Conditions

This chapter describes near-term traffic conditions that most likely would occur when the project is complete. It includes a description of the significance criteria used to establish what constitutes a project impact, a description of the transportation system under background plus project conditions, the method by which project traffic is estimated, and any impacts caused by the project. Background plus project conditions were evaluated relative to background conditions in order to determine potential project impacts. This traffic scenario represents a more congested traffic condition than the existing plus project scenario, since it includes traffic generated by approved projects in the area.

Background Plus Project Conditions Transportation Network

It is assumed in this analysis that the transportation network under background plus project conditions would be the same as described under background conditions that includes the planned Winchester Boulevard complete street improvements as described in the previous chapter.

Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. Impacts on intersections are based on the significance criteria and thresholds of the jurisdiction in which the intersection is located.

City of San Jose Definition of Significant Intersection Impacts

The project is said to create a significant adverse impact on traffic conditions at a signalized intersection in the City of San Jose if for either peak hour:

1. The level of service at the intersection degrades from an acceptable LOS D or better under background conditions to an unacceptable LOS E or F under background plus project conditions, or
2. The level of service at the intersection is an unacceptable LOS E or F under background conditions and the addition of project trips causes 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.

An exception to criteria 2 applies when the addition of project traffic reduces the amount of average stopped delay for critical movements (i.e., the change in average stopped delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

A significant impact by City of San Jose standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection level of service to background conditions or better.

City of Campbell Definition of Significant Intersection Impacts

The project is said to create a significant adverse impact on traffic conditions at a unsignalized intersection in the City of Campbell if for either peak hour:

1. A traffic signal is warranted and
2. The intersection or a turning movement is projected to operate at LOS F.

A significant impact by City of Campbell standards is said to be satisfactory mitigated when measures are implemented that would restore intersection levels of operation to background conditions or better.

Conformance to the CMP Standard

Based on CMP criteria, a project would fail to meet the CMP intersection standard if the additional project traffic caused one of the following during either peak hour:

1. The level of service at the intersection degrades from an acceptable LOS E or better under background conditions to an unacceptable LOS F under project conditions, or
2. The level of service at the intersection is an unacceptable LOS F under background conditions and the addition of project trips causes 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.

An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e. the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by .01 or more.

A significant impact by CMP standards is said to be satisfactorily mitigated when measures are implemented that would restore intersection level of service to background conditions or better.

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, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Through empirical research, data have been collected that correlate to common land uses their propensity for producing traffic. Thus, for the most common land uses there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a

new development. Project trip estimates are based on trip generation rates obtained from the Institute of Transportation Engineers' (ITE's) *Trip Generation*, Tenth Edition, 2017.

Proposed Project Trip Generation

The trip estimates for each of the proposed land use components of the proposed project were reduced to account for internalization, or trips made between each of the proposed land uses. The reductions are based on the assumption that vehicle trips to each of the proposed land uses of the site would be reduced due to internalization of trips. Reductions were applied for the internalization, or trips made between residential and retail uses (15%), trips made between residential and employment (3%), and trips made between employment and employee-serving retail (3%), as recommended by the VTA's *Transportation Impact Analysis Guidelines*, October 2014.

In addition, trip generation for retail uses is typically adjusted to account for pass-by-trips. Pass-by-trips are trips that would already be on the adjacent roadways (and are therefore already counted in the existing traffic) but would turn into the site while passing by. Justification for applying the pass-by-trip reduction is founded on the observation that such retail traffic is not actually generated by the retail development but is already part of the ambient traffic levels. Pass-by-trips are therefore excluded from the traffic projections (although pass-by traffic is accounted for at the site entrances). A typical pass-by trip reduction of 25% for retail development within Santa Clara County was applied to the retail component of the proposed project.

Based on the ITE trip generation rates and applicable reductions, it is estimated that the proposed project would generate 540 daily trips, with 37 trips (20 inbound and 17 outbound) occurring during the AM peak hour and 50 trips (21 inbound and 39 outbound) occurring during the PM peak hour.

Existing Trip Generation

Trips associated with the existing uses on the project site are subtracted from the estimated trips to be generated by the proposed project. There is currently a 1,300-s.f. commercial office building on-site that will be replaced by the proposed project. The existing commercial use operates from 7:30 AM to 4:00 PM on weekdays. The trips generated by the existing uses on site during the AM and PM peak hours were obtained from new driveway counts completed in May 2018. Daily trips were estimated using the ITE rate. Based on driveway counts and the ITE daily rate, the existing commercial space generates 49 daily vehicle trips, with 2 trips (1 inbound and 1 outbound) occurring during the AM peak hour and 5 trips (0 inbound and 5 outbound) occurring during the PM peak hour. The existing business on-site closes at 4PM, therefore, PM peak-hour trips consist of only employees leaving the site.

Net Project Trip Generation

Based on the ITE trip generation rates and credit for existing uses on the project site, it is estimated that the proposed project would generate an additional 491 daily trips, with 35 trips (19 inbound and 16 outbound) occurring during the AM peak hour and 45 trips (21 inbound and 24 outbound) occurring during the PM peak hour. The trip generation estimates for proposed project are presented in Table 6.

Trip Distribution and Assignment

The trip distribution pattern for the proposed project was estimated based on traffic patterns on the surrounding roadway system and on the locations of complementary land uses. The project trip distribution pattern is shown graphically on Figure 12.

The peak-hour trips associated with the proposed project were added to the transportation network in accordance with the distribution pattern discussed above. The planned Winchester Boulevard complete

**Table 6
Trip Generation Estimates**

Land Use	ITE Trip Generation Rate	Reduction %	Size	Daily		AM Peak Hour						PM Peak Hour					
				Rate	Trips	Split		Trips			Rate	Split		Trips			
						In	Out	In	Out	Total		In	Out	Total			
Proposed Land Uses																	
Residential	221 - Multifamily Housing (Mid-Rise)		46 Dwelling Units	5.44	250	0.36	26%	74%	4	13	17	0.44	61%	39%	12	8	20
	<i>housing and retail mixed-use reduction¹</i>	15%			-38				0	-1	-1				-2	-1	-3
	<i>housing and employment mixed-use reduction²</i>	3%			-4				0	0	0				0	0	0
Retail	820 - Shopping Center		7,000 Square Feet	37.75	264	0.94	62%	38%	4	3	7	3.81	48%	52%	13	14	27
	<i>housing and retail mixed-use reduction¹</i>	15%			-38				-1	0	-1				-1	-2	-3
	<i>employment and retail mixed-use reduction³</i>	3%			-4				0	0	0				0	0	0
	<i>retail passby⁴</i>	25%			-6				0	0	0				-3	-3	-6
Office	710 - General Office Building		12,700 Square Feet	9.74	124	1.16	86%	14%	13	2	15	1.15	16%	84%	2	13	15
	<i>housing and employment mixed-use reduction²</i>	3%			-4				0	0	0				0	0	0
	<i>employment and retail mixed-use reduction³</i>	3%			-4				0	0	0				0	0	0
Total Proposed Project Trips					540				20	17	37				21	29	50
Existing Land Use																	
Commercial ⁵	820 - Shopping Center		1,300 Square Feet	37.75	49	1.54	50%	50%	1	1	2	3.85	0%	100%	0	5	5
Net Project Trips (Proposed - Existing)					491				19	16	35				21	24	45

Source: ITE Trip Generation Manual, 10th Edition 2017. (Average rates were used all for land uses)

¹As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with housing and retail components is equal to 15% off the smaller trip generator.

²As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with housing and employment components is equal to 3% off the smaller trip generator.

³As prescribed by the VTA Transportation Impact Analysis Guidelines (October 2014), the maximum trip reduction for a mixed-use development project with employment and employee-serving retail components is equal to 3% off the employment component.

⁴A 25% PM pass-by reduction is typically applied for retail development within Santa Clara County.

⁵Peak-hour trips for the existing medical office were obtained from driveway counts conducted on May 16, 2018. Daily trips were estimated using ITE rates. The existing uses on site closes at 4PM, therefore, the PM peak hour trips only consist of employees leaving the site.

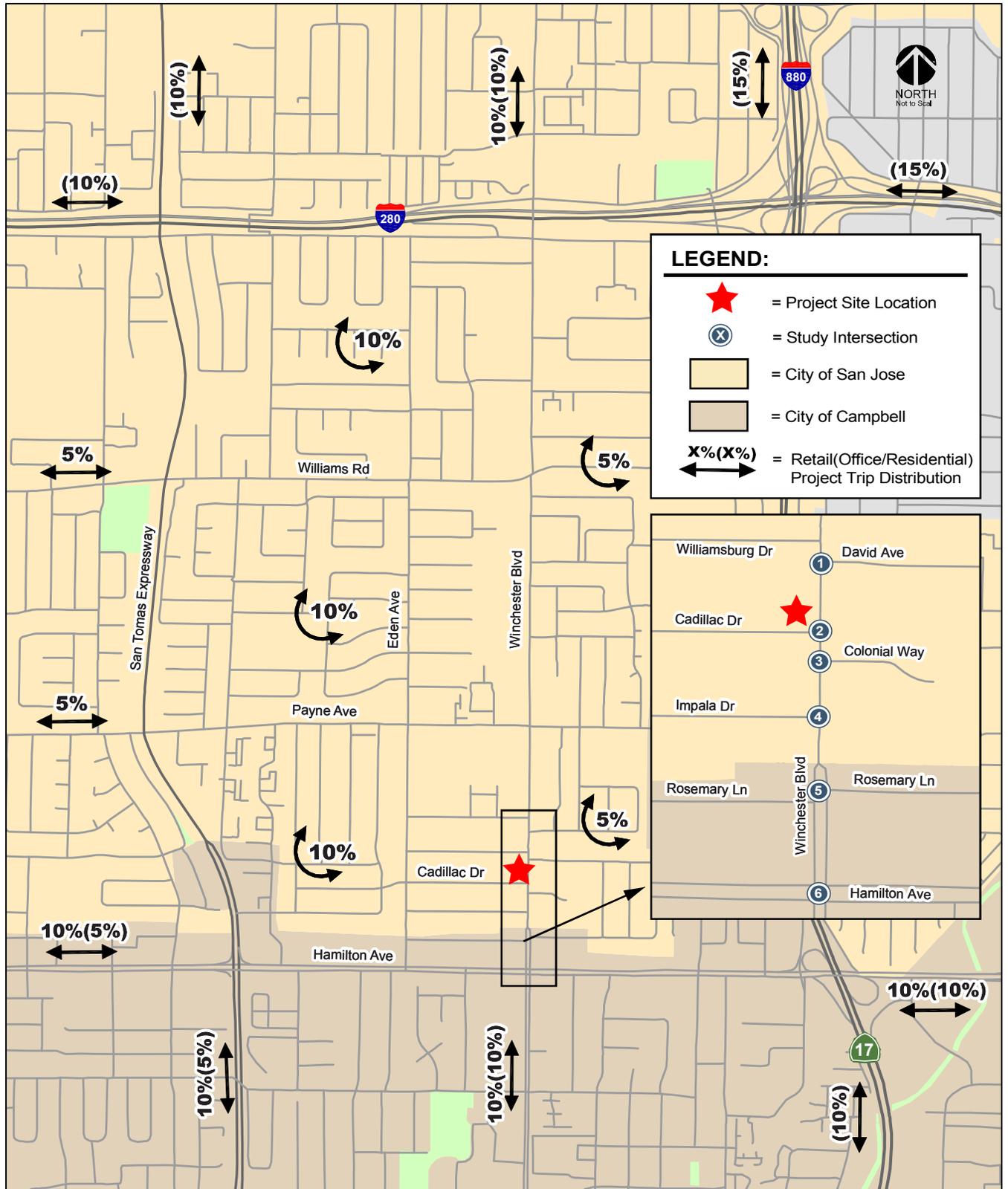


Figure 12
Project Trip Distribution

street improvements will have an effect on the proposed project traffic due to the planned raised median along Winchester Boulevard. Therefore, the project trips were assigned to the roadway system based on the planned Winchester Boulevard improvements. Access to northbound Winchester Boulevard from Cadillac Drive will be restricted due to the adjustment of the southbound left-turn pocket at Colonial Way. Access to the left-turn pocket will not be allowed with the adjusted left-turn pocket. Thus, vehicles bound for northbound Winchester Boulevard from Cadillac Drive will need to proceed south to Hamilton Avenue to make a U-turn or use Eden Avenue to go north. Figure 13 shows the assignment of net project traffic under background plus project conditions on the local transportation network.

Background Plus Project Traffic Volumes

The project trips were added to background traffic volumes to obtain background plus project traffic volumes. The background plus project traffic volumes at the study intersections are shown graphically on Figure 14. Traffic volumes for all components of traffic are tabulated in Appendix B.

Background Plus Project Intersection Level of Service Analysis

The results of the intersection level of service analysis under background plus project conditions are summarized in Table 7. The intersection level of service calculation sheets are included in Appendix C.

City of San Jose Intersection Analysis

The results show that, measured against the City of San Jose level service standard, the intersection of Winchester Boulevard and David Avenue/Williamsburg Drive is projected to operate at an acceptable LOS C or better during both the AM and PM peak hours under background plus project conditions. Based on City of San Jose significance criteria, this intersection would not be significantly impacted by the project.

City of Campbell Intersection Analysis

The results show that, measured against the City of Campbell level of service standard, the intersection of Winchester Boulevard and Rosemary Lane is projected operate at an acceptable LOS B during both the AM and PM peak hours under background plus project conditions. With the implementation of the Winchester Boulevard complete street improvements, both approaches of Rosemary Lane at Winchester Boulevard will be converted to T-intersections and restricted to right-turns only. The reported delay is representative of delay experienced by only the stop-controlled right-turn movements on both approaches of Rosemary Lane. Based on City of Campbell significance criteria, this intersection would not be significantly impacted by the project.

CMP Intersection Analysis

The results show that, measured against the CMP level of service standard, the intersection of Winchester Boulevard and Hamilton Avenue is projected to operate at an acceptable LOS D during both the AM and PM peak hours under background plus project conditions. Based on CMP significance criteria, this intersection would not be significantly impacted by the project.

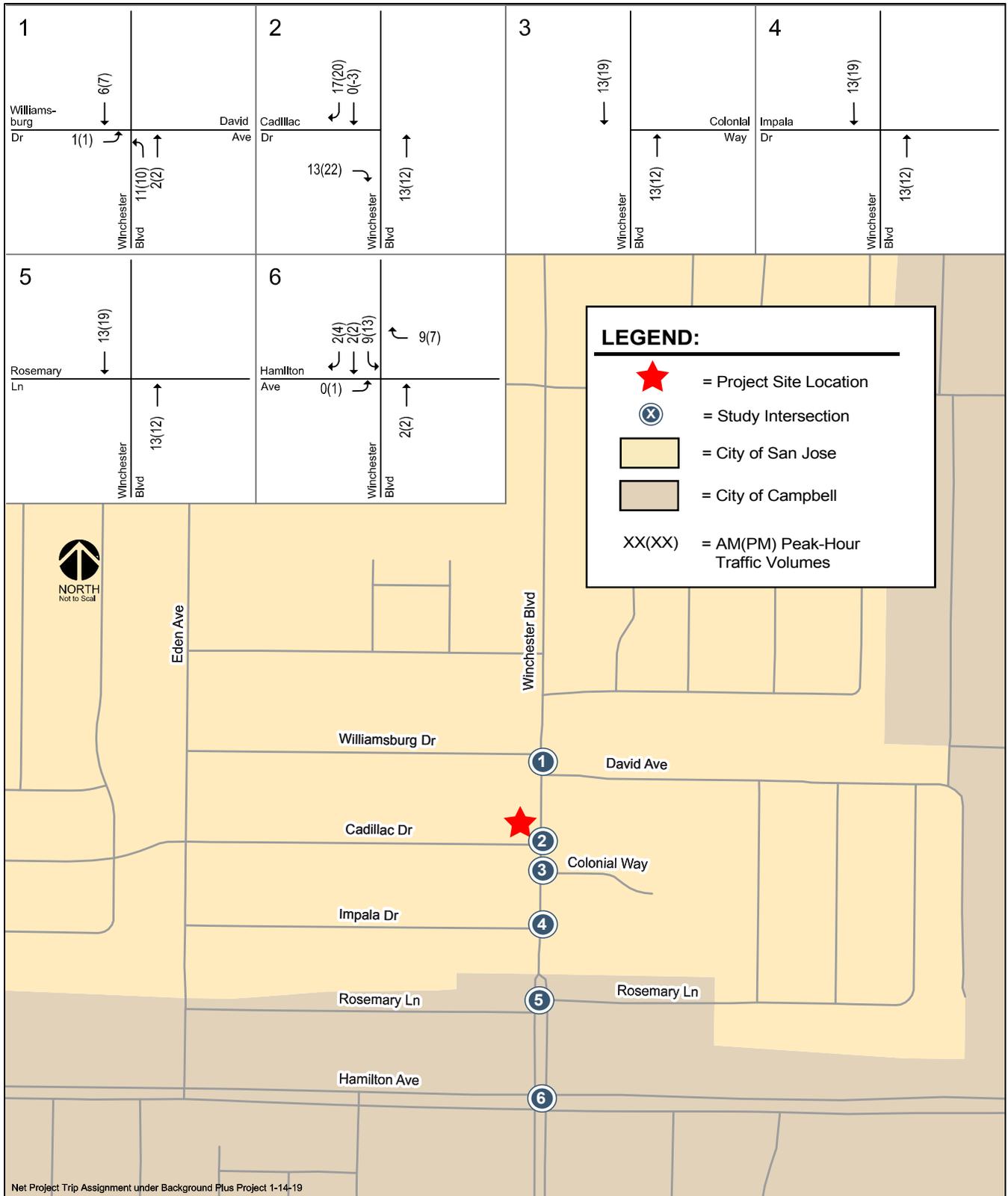


Figure 13
Net Project Trip Assignment Under Background Plus Project

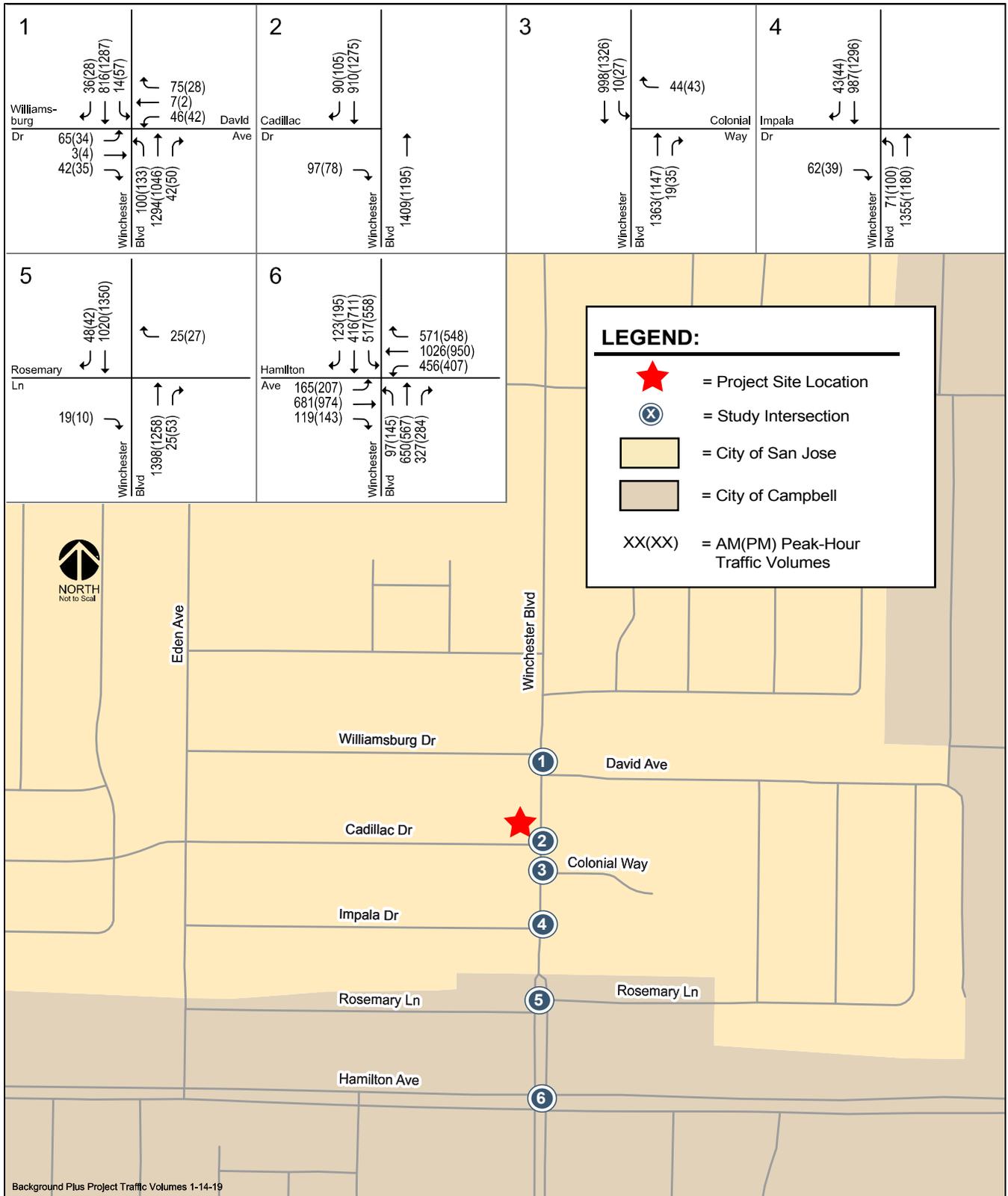


Figure 14
Background Plus Project Traffic Volumes

**Table 7
Background Plus Project Levels of Service**

Int. #	Intersection	Jurisdiction	LOS Standard	Peak Hour	Background		Background Plus Project			
					Delay ¹	LOS	Delay	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	Winchester Boulevard and David Avenue/Williamsburg Drive	San Jose	D	AM	23.8	C	24.1	C	0.1	0.001
				PM	20.5	C	20.8	C	0.6	0.008
5	Winchester Boulevard and Rosemary Lane ² (unsignalized)	Campbell	E	AM	12.0	B	12.0	B	N/A	N/A
				PM	11.7	B	11.7	B	N/A	N/A
6	Winchester Boulevard and Hamilton Avenue *	CMP	E	AM	41.2	D	41.3	D	0.1	0.004
				PM	49.4	D	49.5	D	0.2	0.005

Notes:

* Denotes CMP Intersection

¹The reported delay and corresponding level of service for signalized intersections represents the average delay for all approaches at the intersection. The reported delay and corresponding level of service for two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay.

²The reported delay and corresponding level of service at under background and background plus project conditions reflect right turns only at this intersection due to the Winchester Boulevard Complete Street improvements.

I-280/Winchester Boulevard Interchange Area Transportation Development Policy

The I-280/Winchester Boulevard interchange area Transportation Development Policy (TDP), adopted in September 2016, provides for additional capacity in the immediate area of the I-880/Stevens Creek Boulevard and I-280/Winchester Boulevard interchanges. The TDP was completed for the purpose of managing existing traffic congestion in the I-880/Stevens Creek and I-280/Winchester interchange areas as well as provide additional traffic capacity to accommodate future development such as the proposed project and the City's Urban Village plans.

The TDP provides partial funding, via a traffic impact fee imposed on proposed development, for the implementation of a new westbound off-ramp from I-280 to Winchester Boulevard to reduce traffic congestion at the I-880/Stevens Creek and Stevens Creek Boulevard corridors. The traffic fee is based on the estimated trips to be added to the new westbound off-ramp from I-280 to Winchester Boulevard by each individual development. It is estimated that the proposed project will result in no more than one peak hour trip to the planned I-280 to Winchester Boulevard ramp.

Freeway Segment Capacity Evaluation

Per CMP technical guidelines, freeway segment level of service analysis shall be conducted on all segments to which the project is projected to add one percent or more to the segment capacity. Since the project is not projected to add one percent to any freeway segments in the area, freeway analysis for the CMP was not required. The percentage of traffic projected to be added by the project to freeway segments in the project area is summarized in Table 8.

**Table 8
Freeway Segment Capacity**

#	Freeway Segment	Direction	Peak Hour	Existing Plus Project						Project Trips			
				Mixed-Flow Lane			HOV Lane			Mixed-Flow Lane		HOV Lane	
				Avg. Speed ¹	# of Lanes ¹	Capacity (vph)	Avg. Speed ¹	# of Lanes ¹	Capacity (vph)	Volume	% of Capacity	Volume	% of Capacity
1	SR 17 from San Tomas Expressway/Camden Avenue to Hamilton Avenue	NB	AM	40	3	6,900	--	--	--	2	0.03	--	--
		NB	PM	67	3	6,900	--	--	--	1	0.01	--	--
2	SR 17 from Hamilton Avenue to I-280	NB	AM	34	3	6,900	--	--	--	4	0.06	--	--
		NB	PM	66	3	6,900	--	--	--	6	0.09	--	--
3	I-880 from I-280 to Stevens Creek Boulevard	NB	AM	15	3	6,900	--	--	--	2	0.03	--	--
		NB	PM	67	3	6,900	--	--	--	3	0.04	--	--
4	I-280 from Saratoga Avenue to Winchester Boulevard	EB	AM	63	3	6,900	67	1	1,650	2	0.03	0	0.00
		EB	PM	15	3	6,900	40	1	1,650	1	0.01	0	0.00
5	I-280 from Winchester Boulevard to I-880	EB	AM	66	3	6,900	67	1	1,650	0	0.00	0	0.00
		EB	PM	14	3	6,900	30	1	1,650	0	0.00	0	0.00
6	I-280 from I-880 to Meridian Avenue	EB	AM	66	3	6,900	67	1	1,650	2	0.03	0	0.00
		EB	PM	13	3	6,900	30	1	1,650	2	0.03	1	0.06
7	I-280 from Meridian Avenue to I-880	WB	AM	10	3	6,900	13	1	1,650	2	0.03	1	0.06
		WB	PM	66	3	6,900	70	1	1,650	2	0.03	0	0.00
8	I-280 from I-880 to Winchester Boulevard	WB	AM	12	3	6,900	15	1	1,650	0	0.00	0	0.00
		WB	PM	51	3	6,900	70	1	1,650	0	0.00	0	0.00
9	I-280 from Winchester Boulevard to Saratoga Avenue	WB	AM	17	3	6,900	20	1	1,650	1	0.01	0	0.00
		WB	PM	55	3	6,900	70	1	1,650	2	0.03	0	0.00
10	I-880 from Stevens Creek Boulevard to I-280	SB	AM	66	3	6,900	--	--	--	3	0.04	--	--
		SB	PM	66	3	6,900	--	--	--	2	0.03	--	--
11	SR 17 from I-280 to Hamilton Avenue	SB	AM	64	3	6,900	--	--	--	5	0.07	--	--
		SB	PM	35	3	6,900	--	--	--	4	0.06	--	--
12	SR 17 from Hamilton Avenue to San Tomas Expressway/Camden Avenue	SB	AM	66	3	6,900	--	--	--	1	0.01	--	--
		SB	PM	65	3	6,900	--	--	--	2	0.03	--	--

¹ Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2016.

6. Other Transportation Issues

This chapter presents an analysis of other transportation issues associated with the project site, including:

- Potential impacts to transit, bicycle, and pedestrian facilities
- Site access and traffic operations under background plus project conditions

These other transportation issues were evaluated to determine if any deficiencies would exist under project conditions that may not be specifically linked to environmental impact reporting. These may not be considered environmental issues, and may not be evaluated in an environmental assessment, but have been included in the traffic study to meet the requirements of the local jurisdiction. Unlike the level of service impact methodology, which is adopted by the City Council, the analyses in this chapter are based on professional judgment in accordance with the standards and methods employed by the traffic engineering community.

Site Access and On-Site Circulation

A review of the project site plan was performed to determine if adequate site access and on-site circulation are provided and to identify any access or circulation issues that should be improved. This review is based on the site plan prepared by BDE Architecture dated December 20, 2018 and in accordance with generally accepted traffic engineering standards.

Site Access

The project site is bound by Winchester Boulevard to the east and Cadillac Drive to the south. The Cadillac Drive and Winchester Boulevard intersection will provide primary access to the project site and its entrance on Cadillac Drive. Access also will be provided from Cadillac Drive from the west. However, it is anticipated that the majority of traffic bound for the project site will utilize Winchester Boulevard since it will provide the most direct access to the project site from regional freeways and other major arterials. Project trips at each of the intersections along Winchester Boulevard that provide access to the project site are shown on Figure 15.

Access to and from properties along Winchester Boulevard between Hamilton Avenue and Payne Avenue is complicated due to the many staggered east-west streets that intersect Winchester Boulevard. The Cadillac Drive and Winchester Boulevard intersection is currently restricted to right-turns only to and from Winchester Boulevard. Therefore, inbound project traffic from northbound Winchester Boulevard will be required to proceed past the project site and make a U-turn at the David Avenue intersection. With the planned Winchester Boulevard complete street improvements, access to

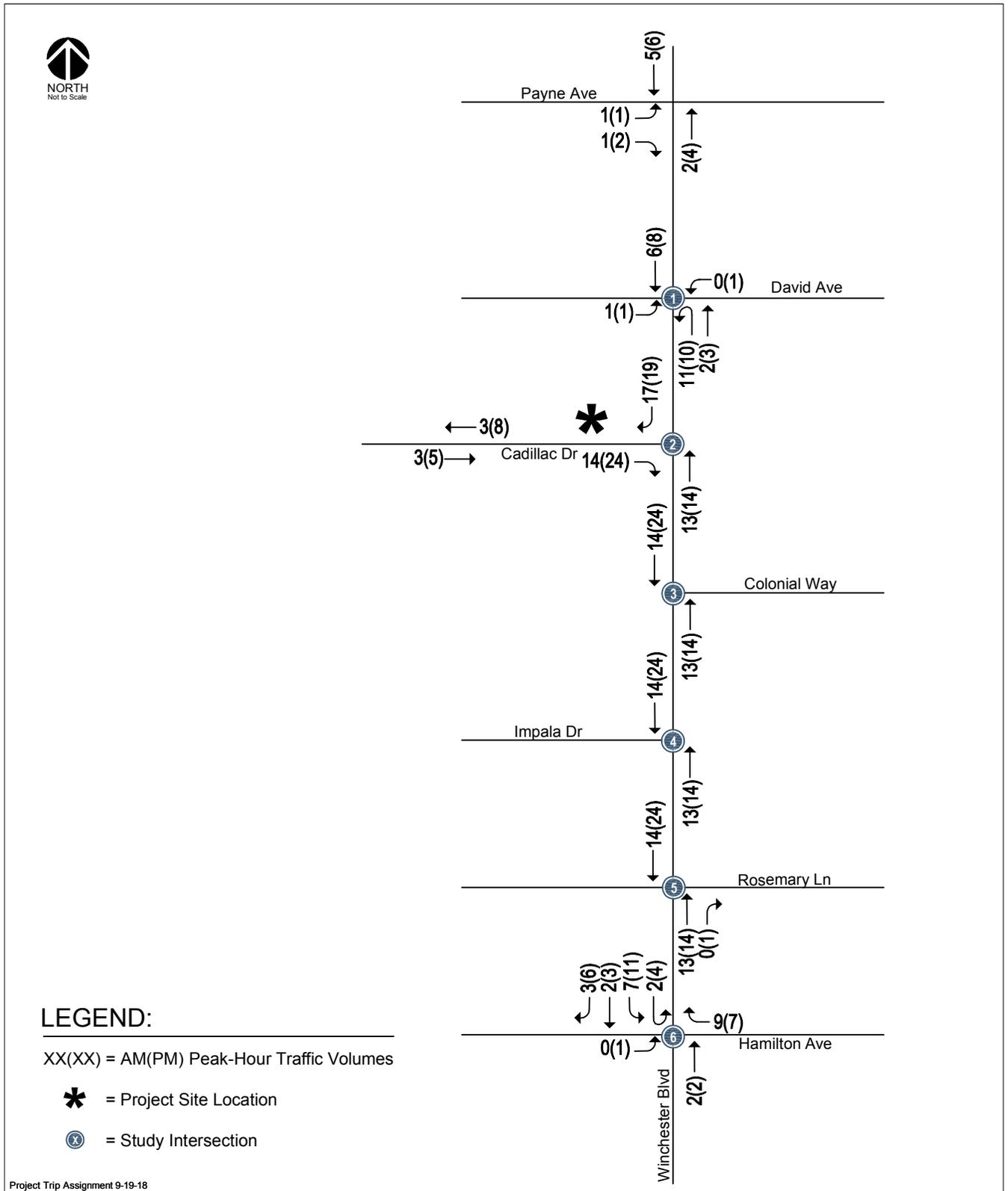


Figure 15
Gross Project Trip Assignment

northbound Winchester Boulevard from Cadillac Drive will be restricted due to the adjustment of the southbound left-turn pocket at Colonial Way. Access to the left-turn pocket will not be allowed with the adjusted left-turn pocket. Thus, project traffic bound for northbound Winchester Boulevard from Cadillac Drive will need to proceed south to Hamilton Avenue to make a U-turn or use Eden Avenue to go north.

Project Driveway Operations

The parking garage will provide 119 on-site parking spaces with one access point located on Cadillac Drive. The ground-floor parking layout is presented on Figure 16. The site plan indicates that the garage access point will provide one inbound lane and one outbound lane. Project trips at the project access point along Cadillac Drive are shown in Figure 16. Vehicle queuing issues are not expected to occur at the parking garage entrance based on the relatively low number of project trips at the entrance and low traffic volumes on Cadillac Drive. The estimated peak hour volumes at the garage entrance equate to approximately one vehicle entering or exiting the entrance every two to three minutes.

Project Driveway Design

According to the City of San Jose municipal code, on-site drive aisles that serve two-way drive aisles must be a minimum of 26 feet wide and driveway widths should match the 26 feet wide drive aisles. The driveway on Cadillac Drive is shown to be 20 feet wide on the provided site plan. The driveway must be widened to 26 feet per the City's driveway design requirement.

Sight Distance at the Driveway Serving the Project

Adequate sight distance will be required at the project driveway along Cadillac Drive. The project access point 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 Schiele Avenue. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site. Appropriate visible and/or audible warning signals should be provided at the garage entrance to alert pedestrians and bicyclists of vehicles exiting the parking garage.

Adequate sight distance (sight distance triangles) should be provided at the project driveway in accordance with the *American Association of State Highway Transportation Officials (AASHTO)* 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 AASHTO stopping sight distance. Sight distance requirements vary depending on the roadway speeds. Cadillac Drive has a posted speed limit of 25 miles per hour (mph). The AASHTO stopping sight distance for a facility with a posted speed limit of 25 mph is 155 feet. Thus, a driver exiting the proposed project driveway on Cadillac Drive must be able to see 155 feet east and west along Cadillac Drive in order to stop and avoid a collision.

Based on the project site plan and observations in the field, vehicles exiting the project site driveway on Cadillac Drive would be able to see approaching traffic on eastbound Cadillac Drive at least 200 feet to the west. The driveway will be located approximately 100 feet west of the Winchester Boulevard and Cadillac Drive intersection. However, drivers would have full view of westbound traffic on Cadillac Drive at the Winchester Boulevard/Cadillac Drive intersection and vehicle speeds will be less than 25 mph when completing turn-movements through the intersection. Therefore, the sight distance from the proposed driveway location to the Winchester Boulevard/Cadillac Drive intersection should be adequate. It should also be noted that the existing site driveway along Cadillac Drive is located only 20 feet west of Winchester Boulevard. Therefore, the proposed relocation of site access will provide for additional spacing from Winchester Boulevard.

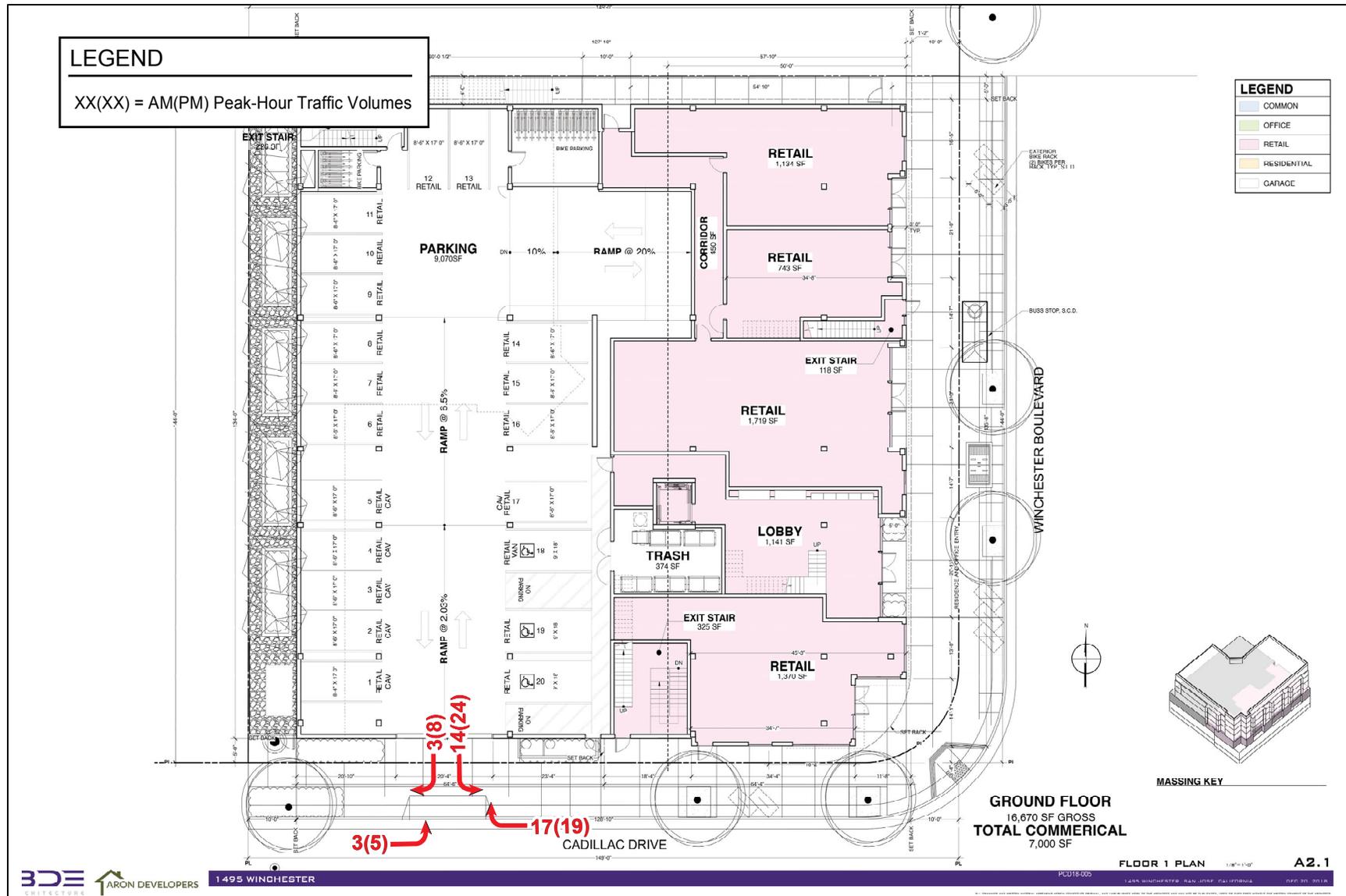


Figure 16
Gross Project Trips at Site Access Driveway

On-Site Circulation

On-site vehicular circulation was reviewed for the project in accordance with generally accepted traffic engineering standards. The ground floor parking level will provide 20 retail designated parking spaces and access to a ramp serving the three below grade parking levels. When entering the ground-floor parking level, drivers will proceed to the end of the drive aisle to access a ramp to the three underground parking levels.

The City's standard 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 parking spaces. As shown on the site plan, the drive aisles within the garage measure to be approximately 26 feet wide and would meet the City's requirement. Drive aisles less than 26 feet are adequate, where parking is located on only one side of the drive aisle. Drive aisles less than 26 feet wide with parking on both sides will require City's review and approval.

A dead-end aisle will exist at the end of the drive aisle on the third underground parking level of the garage. Dead end aisles are undesirable because drivers will enter the aisle, and upon discovering that there is no available parking, must back out or conduct three-point turns. In areas where parking spaces are designated for specific individuals, dead end aisles are less problematic. All locations where dead-end aisles are provided should be dedicated for employee use or assigned residential parking.

Truck Access and Loading

A trash room is shown on the ground floor level of the parking garage. Garbage trucks will not enter the parking garage. Therefore, trash bins will need to be wheeled out to Cadillac Drive via the parking garage entrance for garbage truck pickup.

According to the City of San Jose Municipal Code (20.90.410 - Required off-street loading spaces), the project is required to provide one off-street loading space. The site plan does not indicate that a loading space will be provided on-site. In lieu of providing off-street loading spaces, it is recommended that the project applicant work with City staff to determine the feasibility of providing a public loading zone on Cadillac Drive along the project frontage. The loading zone must be located a minimum of 20 feet from Winchester Boulevard. Based on the location of the proposed project garage entrance an approximately 60-foot public loading zone could be accommodated along Cadillac Drive.

Intersection Operations Analysis

The operations analysis is based on vehicle queuing for high demand turning movements at intersections. 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 number of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

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 per cycle for a particular 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 movement. This analysis thus provides a basis for estimating future left-turn storage requirements at 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. Likewise, 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). Therefore, left-turn storage pocket designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time. The 95th percentile queue length is also known as the “design queue length”. The vehicle queue estimates and a tabulated summary of the findings are provided in Table 9. The vehicular queuing analysis (Poisson probability calculations) is included in Appendix D.

Winchester Boulevard and David Avenue/Williamsburg Drive

Northbound Left-Turn

The queuing analysis indicates that the maximum vehicle queue for the northbound left-turn pocket at the Winchester Boulevard and David Avenue/Williamsburg Drive intersection currently exceeds the existing vehicle storage capacity and will continue to do so under background and background plus project conditions during both the AM and PM peak hours.

The northbound left-turn pocket currently provides approximately 125 feet of vehicle storage, which can accommodate approximately five vehicles. The estimated 95th percentile vehicle queue for the northbound left-turn movement is projected to be approximately 6 and 8 vehicles during the AM and PM peak hours, respectively, under background conditions. The addition of project traffic would lengthen the projected northbound left-turn vehicle queue by no more than one vehicle during the peak hours.

The existing northbound left-turn pocket at the Winchester Boulevard and David Avenue/Williamsburg Drive intersection cannot be extended due to the back-to-back left-turn pocket of upstream intersection at Colonial Way. A second northbound left-turn lane also is not feasible because there is only one receiving lane on Williamsburg Drive. A potential improvement would be to close the median break along Winchester Boulevard that provides the southbound left-turn to Colonial Way to allow for the extension of the northbound left-turn pocket at David Avenue/Williamsburg Drive by 100 feet. The median closure would require that vehicles bound for Colonial Way from southbound Winchester Boulevard to proceed to Hamilton Avenue to perform a U-turn.

Winchester Boulevard and Hamilton Avenue

Southbound Left-Turn

The queuing analysis indicates that the maximum vehicle queue for the southbound left-turn pockets at the Winchester Boulevard and Hamilton Avenue intersection currently exceed the existing vehicle storage capacity and will continue to do so under background and background plus project conditions during both the AM and PM peak hours.

The southbound left-turn pockets currently provide approximately 225 feet of vehicle storage per lane, which can accommodate about 9 vehicles per lane. As part of the planned Winchester Boulevard complete street improvements, the southbound left-turn pocket to Rosemary Lane will be removed. The removal of the left-turn pocket to Rosemary Lane will allow for the extension of the southbound left-turn pockets at Hamilton Avenue to provide approximately 400 feet per lane, or storage for approximately 16 vehicles per lane. The estimated 95th percentile vehicle queue for the southbound left-turn movement is

**Table 9
Vehicle Queue and Left-turn Storage Capacity**

Measurement	Winchester Boulevard and David Avenue		Winchester Boulevard and Hamiton Avenue			
	Northbound Left		Southbound Left		Eastbound Left	
	AM	PM	AM	PM	AM	PM
Existing Conditions						
Cycle Length (sec)	126	126	138	166	138	166
Lanes	1	1	2	2	2	2
Volume (vph)	89	123	428	448	133	176
Volume (vphpl)	89	123	214	224	67	88
95th % . Queue (veh/ln.)	6	8	13	16	5	8
95th % . Queue (ft./ln) ¹	150	200	325	400	125	200
Storage (ft./ ln.)	125	125	225	225	225	225
Adequate (Y/N)	NO	NO	NO	NO	YES	YES
Background Conditions						
Cycle Length (sec)	126	126	138	166	138	166
Lanes	1	1	2	2	2	2
Volume (vph)	89	123	508	545	165	206
Volume (vphpl)	89	123	254	273	83	103
95th % . Queue (veh/ln.)	6	8	15	19	6	9
95th % . Queue (ft./ln) ¹	150	200	375	475	150	225
Storage (ft./ ln.)	125	125	400	400	225	225
Adequate (Y/N)	NO	NO	YES	NO	YES	YES
Background Plus Project Conditions						
Cycle Length (sec)	126	126	138	166	138	166
Lanes	1	1	2	2	2	2
Volume (vph)	100	133	517	558	165	207
Volume (vphpl)	100	133	259	279	83	104
95th % . Queue (veh/ln.)	7	9	15	19	6	9
95th % . Queue (ft./ln) ¹	175	225	375	475	150	225
Storage (ft./ ln.)	125	125	400	400	225	225
Adequate (Y/N)	NO	NO	YES	NO	YES	YES
Note: ¹ Assumes 25 feet per vehicle queued						

projected to be approximately 15 and 19 vehicles per lane during both the AM and PM peak hours, respectively, under background conditions. However, the addition of project traffic would not lengthen the projected vehicle queue during the peak hours. Therefore, the proposed project is not required to improve the existing deficiency.

Signal Warrant Analysis

The need for signalization of an unsignalized intersection is assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the *California Manual on Uniform Traffic Control Devices for Streets and Highways (CA MUTCD)*, Part 4, Highway Traffic Signals, 2014. This method makes no evaluation

of intersection level of service, but simply provides an indication whether vehicular peak hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Additional analysis may include unsignalized level of service analysis and/or operational analysis such as evaluating vehicle queuing and delay. Other options such as traffic control devices, signage, or geometric changes may be preferable based on existing field conditions. The traffic signal warrant calculations are included in Appendix E.

Peak-hour traffic signal warrant checks indicate that the projected traffic volumes at all the unsignalized study intersections would fall below the thresholds that warrant signalization.

Transit Services

The project site is served directly by VTA local bus line 60, which operates along Winchester Boulevard. The southbound and northbound bus stops for line 60 are located on Winchester Boulevard along the project's frontage and near Colonial Way, respectively. It can be assumed that some residents/employees of the proposed project would utilize the existing transit services. Applying an estimated three percent transit mode share, which is probably the highest that could be expected for the project, equates to approximately one new transit rider during the AM peak hour and two during the PM peak hour. Assuming the existing transit service would remain unchanged with line 60 providing service with 15-20-minute headways during the peak commute periods at bus stops along Winchester Boulevard, the estimated number of new transit rider using the bus stops located near the project site would equate to no more than two new riders per bus during the peak hours. VTA operations reports indicate that the 60-bus line as well as several other bus lines in the project area serve less than ideal ridership. Therefore, the new riders due to the proposed project could be accommodated by the current available capacity of the bus service in the study area and improvement of the existing transit service would not be necessary with the project.

Bicycle and Pedestrian Facilities

Currently, the Class II bike lane on Winchester Boulevard between Hamilton Avenue and Payne Avenue does not provide a direct connection to other bicycle facilities to the north and south.

The San Jose Bike Plan 2020 and Envision 2040 General Plan, as described below, identify planned improvements to the bicycle network within the City and provide policies and goals that are intended to promote and encourage the use of multi-modal travel options and reduce the identified project impacts to the roadway system. The planned improvements to the bicycle network will provide the project site with improved connections to surrounding pedestrian/bike and transit facilities and a balanced transportation system as outlined in the Envision 2040 General Plan goals and policies.

Pedestrian traffic primarily would consist of residents and employees of the proposed project walking to and from surrounding retail establishments, as well as bus stops on Winchester Boulevard and Hamilton Avenue. Crosswalks with pedestrian signal heads are located at the David Avenue and Hamilton Avenue signalized intersections with Winchester Boulevard. However, pedestrian access to the bus stop along northbound Winchester Boulevard across from the project will require the use of crosswalks at the David Avenue intersection. This will require a pedestrian route of approximately 600 feet to the north versus an uncontrolled 200-foot long crossing of Winchester Boulevard. However, implementation of a crosswalk at Cadillac Drive is not recommended due to its close proximity to the David Avenue signalized intersection. All of the roadways in the vicinity of the project site have sidewalks on both sides of the street.

Public Transit/Pedestrian/Bike Improvements

The proposed project site is located within the Winchester Boulevard Urban Village Boundary and fronts Winchester Boulevard, which has been designated as a Grand Boulevard by the Envision San José 2040 General Plan. Sites within an Urban Village and located along a Grand Boulevard must incorporate additional urban design and architectural elements that will facilitate a building with pedestrian orientated design and activate the pedestrian public right-of-way.

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 operational issues on 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 be required to 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 in regard to 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 improvements for vehicular circulation.
- Give priority to pedestrian improvement projects that improve pedestrian safety, 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:

- Winchester Boulevard, between Payne Avenue and Moorpark Avenue
- Cypress Avenue, between Williams Road and Moorpark Avenue

Class III bike routes are planned for:

- Payne Avenue, between Winchester Boulevard and Greenbriar Avenue
- Greenbriar Avenue, between Payne Avenue and Westfield Avenue
- Westfield Avenue, between Greenbriar Avenue and Daniel Way

Transit Facility Improvements

The Envision 2040 General Plan identifies the following goals in regard to public transit:

- Pursue development of BRT, bus, shuttle, and fixed guideway services on designated streets and connections to major destinations.
- Ensure that roadways designated as Grand Boulevards adequately accommodate transit vehicle circulation and transit stops. Prioritize bus mobility along Stevens Creek Boulevard.

Winchester Boulevard between Moorpark Avenue and Impala Drive has been designated as a Grand Boulevard within the Envision 2040 General Plan. Grand Boulevards are intended to serve as major transportation corridors with priority given to public transit. Given that the project fronts Winchester Boulevard, the project shall be required to implement the following Grand Boulevard design principles:

- Provide a minimum 15 feet sidewalk width along its frontage on Winchester Boulevard
- Minimize driveway cuts to minimize transit delay
- Provide enhanced shelters for transit services

In addition, as a Grand Boulevard it is envisioned that Winchester Boulevard could potentially be included in the VTA Bus Rapid Transit (BRT) System. However, there are no plans at this time for a BRT line on Winchester.

There is a BRT line planned for the West San Carlos Street/Stevens Creek Boulevard corridor. The BRT will run on Stevens Creek Boulevard. Two BRT infrastructure solutions have been proposed: a single reversible transit-only lane between Winchester and MacArthur; and a dual-lane, transit-only overhead viaduct between Henry and MacArthur. The former option would include a center passing lane through the station loading areas, while the latter would include an aerial station.

The Stevens Creek Boulevard corridor serves as the primary access point to major retail/commercial destinations along Stevens Creek Boulevard and access to the area from the regional freeways of I-280 and I-880 is limited to their interchanges with Stevens Creek Boulevard. The proposed center lane BRT will require the removal of one travel lane in each direction of travel along a segment of Stevens Creek Boulevard between Winchester Boulevard and I-880 that is already congested. The removal of vehicular capacity along the primary travel corridor will result in a significant increase in congestion on the segment. Therefore, it is recommended that future BRT service along Stevens Creek Boulevard between Winchester Boulevard and I-880 be accommodated within the existing travel lanes.

The West San Carlos Street/Stevens Creek Boulevard BRT is in only the preliminary stages of its environmental review and there is no identified schedule for its completion.

Parking***Vehicle Parking***

The City's parking requirements for multiple-dwelling residential uses (Section 20.90.060 Table 20-210) are as follows: 1.25 parking spaces for studios or one-bedroom unit and 1.7 parking spaces for two-

bedroom units. The project proposes 13 studios, 28 one-bedroom units, and 5 two-bedroom units. Based on the City’s parking code requirements, the project would need to provide 61 off-street parking spaces for the proposed residential units.

The 12,700 s.f. of office space will be required to provide one off-street parking space per 250 square feet of floor area per the City’s Zoning Regulations (Section 20.90.060 Table 20-190). Based on the City’s parking code requirements, the project is required to provide 51 off-street parking spaces for the proposed office space.

The 7,000 s.f of retail space will be required to provide one off-street parking space per 200 square feet of floor area per the City’s Zoning Regulations (Section 20.90.060 Table 20-190). Based on the City’s parking code requirements, the project is required to provide 35 off-street parking spaces for the proposed retail use.

Based on the City’s parking requirements, the project is required to provide a total of 147 off-street parking spaces. The project is located in the Winchester Urban Village. The Urban Village Overlay allows for a 20 percent reduction in parking with the implementation of a Transportation Demand Management (TDM) plan. With the 20 percent reduction, the required parking would be reduced to 118 spaces (see Table 10). The project is proposing a total of 119 parking spaces which would meet the City’s parking requirements. The City has notified the applicant that they will not support a reduction in parking of greater than 20 percent due to the on-street parking issues discussed in the following section. The project will be required to submit and have approved by the City its TDM program for a maximum 20 percent reduction in off-street parking.

Surrounding On-Street Parking

The project site is located just outside the perimeter of the Cadillac Residential Parking Program (RPP) zone, where a permit is required to use on-street parking from 10:00 PM to 6:00 AM every day except on holidays. In order to obtain a parking permit, the applicant must live in or own a residential property or operate a business in a parking permit zone. Generally, this means that the residence or business must be located on the same side of the street and block face where permit parking signs are posted. The locations of on-street parking, where a RRP permit is required, are shown on Figure 17.

Since the proposed project is proposing to provide less on-site parking than required based on standard City parking requirements, a review of the anticipated peak parking demand for the project site uses and availability of on-street parking to serve parking demand that may not be met by the provided on-site parking was completed. The peak parking demand for the project was determined based on survey results compiled by the Urban Land Institute and the methodology presented in their *Shared Parking* guide. The surveys evaluate parking demand characteristics for various land uses and identify hourly parking demand ratios for each land use. The parking demand for the proposed project is presented in Table 11.

Based on the parking demand survey data, the maximum parking demand for the project during the 10:00 PM to 6:00 AM period when the RPP is enforced, would be approximately 70 vehicles. Therefore, the proposed 119 on-site spaces would be adequate to serve the project’s parking demand during the time period when the RPP is enforced.

However, based on the survey data, the peak daily parking demand for the project would occur between the hours of 2:00 pm and 3:00 pm. Therefore, a parking count of Cadillac and Impala Drives was conducted on Wednesday May 30, 2018 from 1:00 PM to 2:00 PM to determine the availability of on-street parking during the project’s peak parking demand period. The parking counts indicate that on-street parking on Cadillac and Impala Drives, between Winchester Boulevard and Eden Avenue, is very limited and would not be adequate to serve the project’s parking demand that may not be met by the provided on-

Table 10
Vehicle Parking Requirements

Proposed Project		City of San Jose Parking Code ¹		General	Urban Village
Land Use	Size	Land Use	Parking Ratio	Required Parking	Required Parking ²
Office	12,700 s.f.	Offices, business and administrative	1/250 s.f. of floor area	51	41
Retail	7,000 s.f.	Retail sales, goods, and merchandise	1/200 s.f. of floor area	35	28
Apartment ³	46 units	Multiple dwelling residential	1.25/1-bedroom, 1.7/2bedrooms 1.25/studio	61 <hr/> 147	49 <hr/> 118

Notes:
¹City of San Jose Zoning Ordinance: Parking Spaces Required by Land Use
²Includes 20% allowable reduction of parking requirement in an Urban Village.
³46 apartments consist of 13 studios, 28 one-bedroom units, and 5 two-bedroom units.



Figure 17
Cadillac Residential Parking Program Permit-Required Locations

**Table 11
Project Peak Parking Demand**

Hour of Day	Weekday								
	Retail		Residential		Office		Combined Total		
	Customer	Demand ¹	Resident	Demand ¹	Employee	Demand ¹	Demand ¹	Supply	Difference
6:00 AM	1%	0	100%	49	3%	1	51	119	68
7:00 AM	5%	1	90%	44	30%	12	58	119	61
8:00 AM	15%	4	85%	42	75%	31	77	119	42
9:00 AM	35%	10	80%	39	95%	39	88	119	31
10:00 AM	65%	18	75%	37	100%	41	96	119	23
11:00 AM	85%	24	70%	34	100%	41	99	119	20
Noon	95%	27	65%	32	90%	37	95	119	24
1:00 PM	100%	28	70%	34	90%	37	99	119	20
2:00 PM	95%	27	70%	34	100%	41	102	119	17
3:00 PM	90%	25	70%	34	100%	41	101	119	19
4:00 PM	90%	25	75%	37	90%	37	99	119	20
5:00 PM	95%	27	85%	42	50%	21	89	119	30
6:00 PM	95%	27	90%	44	25%	10	81	119	38
7:00 PM	95%	27	97%	48	10%	4	78	119	41
8:00 PM	80%	22	98%	48	7%	3	73	119	46
9:00 PM	50%	14	99%	49	3%	1	64	119	55
10:00 PM	30%	8	100%	49	1%	0	58	119	61
11:00 PM	10%	3	100%	49	0%	0	52	119	67
Midnight	0%	0	100%	49	0%	0	49	119	70

Source: Urban Land Institute (ULI) *Shared Parking, 2nd Edition, 2005. (Table 2-5)*

¹Parking demand is based on the City of San Jose off-site parking requirements with the allowed 20% parking reduction for projects located within an urban village.

site parking. In addition, the parking demand for the project would exceed the provided on-site parking between the hours of 10:00 AM and 8:00 PM.

With the implementation of the required TDM plan, as described below, the project will provide adequate parking spaces on-site to satisfy its parking demand and will not have an effect on the Cadillac RPP.

Transportation Demand Management

In order to be granted a 20 percent reduction in required off-street parking per the Winchester Urban Village Plan, the project will be required to implement a TDM program with measures that will reduce the required on-site parking for the proposed project. The City has notified the applicant that they will not support a reduction in parking of greater than 20 percent due to the on-street parking issues. Therefore, the project will be required to implement TDM measures that result in a reduction in parking demand of no more than 20 percent. The project will be required to submit and have approved by the City its TDM program for a maximum 20 percent reduction in off-street parking.

The TDM program should encourage multimodal travel and use of the extensive bus service and pedestrian/bicycle facilities in the immediate project area to the maximum extent possible. The applicant/property owner should manage the TDM program to ensure tenant employee participation. An effective TDM program that includes several of the measures identified below can easily achieve a 20% percent reduction in work-related vehicle trips that result in a reduction of the project’s parking demand. However, the analysis contained in this report does not include reductions based on TDM measures.

Therefore, the estimates of trips to be generated by the proposed project as presented and evaluated within this study may represent an over-estimation of traffic and impacts associated with the proposed project. Implementation of a TDM Program has the potential to greatly reduce project generated traffic and the identified parking issues.

The project TDM program may include, but would not be limited to, the following, or alternative equivalent, elements to reduce vehicle trips:

- *Eco Pass or Clipper Card* for all employees, providing free rides on Santa Clara County's local transit agency, the Santa Clara Valley Transportation Authority (VTA)
- *25% Transit Subsidy* for transit agencies other than the VTA, including Caltrain, ACE, Capitol Corridor, BART, MUNI, and other
- *Monthly Vanpool Subsidy*
- *Commuter Tax Benefits* through WageWorks offering pre-tax deduction per month for transit and pre-tax deduction per month for parking
- *Free "Last Mile" Shuttles* to local train systems (e.g. Caltrain, Amtrak, ACE)
- *Free Wi-Fi Commuter Buses* direct from areas like San Francisco and the TriValley area
- *Internal Carpool Matching Program* utilizing zip code matching
- *Regional Carpool Matching Program* through 511
- *Personalized Commute Assistance* offered by a Commute Coordinator
- *Preferred parking for Carpools and Vanpools* located near entrances to every building
- *Bicycle Lockers and/or Bicycle Racks* near entrances to every building
- *Showers* for cyclists and pedestrians, offering clean towel service, complimentary toiletries, hair dryers, and ironing boards
- *Intranet Site* featuring transit, bike, ridesharing and telework information
- *New Hire Orientation* presentations focusing on commute alternatives from Day 1
- *Centrally-Located Kiosks* with transit schedules, bike and transit maps, and other commute alternative information
- *Periodic Events* which connect employees with local transit agencies and transportation organizations (e.g. Spare the Air Fair, Bike to Work Day)
- *Onsite amenities* which allow employees to complete errands without a car, such as bicycle repair, dry cleaning, oil changes, carwash, haircuts, dental services, cafeteria, coffee bars, fitness center, massage services, mail and shipping services, convenience store, ATM, gift store.

Bicycle Parking

The City's bicycle parking requirements for each of the project components (Section 20.90.060 Tables 20-190 and 20-210) are as follows: 1 parking space per 4 residential units, 1 parking space per 4,000 s.f. of office floor area, and 1 parking space per 3,000 s.f. of retail floor area. Based on these standard parking requirements, the project is required to provide 19 off-street bicycle parking spaces (see Table 12). The project site plan indicates that two bicycle storage rooms will be located within the ground level of the parking garage. The storage rooms are shown to provide space for a total of 48 bicycles. The proposed bicycle parking on-site will exceed the City's requirements and encourage the use of non-auto modes of travel and minimize the demand for on-site parking.

**Table 12
Bicycle Parking Requirements**

Proposed Project		City of San Jose Bicycle Parking Requirements ¹		Bicycle Parking Required
Land Use	Size	Land Use	Parking Ratio	
Office	12,700 s.f.	Offices, business and administrative	1 per 4,000 sq. ft. of floor area	4
Retail	7,000 s.f.	Retail sales, goods, and merchandise	1 per 3,000 sq. ft. of floor area	3
Apartment	46 units	Multiple dwelling residential	1 per 4 living units	12
				19

Notes:
¹City of San Jose Zoning Ordinance: Parking Spaces Required by Land Use

Effects on Surrounding Residential Streets

The proposed project site is adjacent to three major thoroughfares, Winchester Boulevard, Hamilton Avenue, and Payne Avenue. As proposed, direct access to the project site would be provided by a driveway on Cadillac Drive. It is estimated that the majority of the project traffic would utilize the major thoroughfares for travel. However, some project traffic could utilize Eden Avenue and Cadillac Drive for travel between the project site and other nearby destinations, such as schools, parks, shopping centers, and others. For this reason, an evaluation of the effects of project traffic along Eden Avenue and Cadillac Drive was completed. The study roadway segments include:

1. Cadillac Drive, between Winchester Boulevard and Eden Avenue
2. Eden Avenue, between Hamilton Avenue and Cadillac Drive
3. Eden Avenue, between Cadillac Drive and Payne Avenue

The evaluation consists of a roadway segment analysis to quantify the potential change in traffic volumes along the study roadway segments as a result of the proposed project. For the evaluation, the existing and projected daily traffic volumes with the project along the study roadway segments were compared to acceptable volume thresholds for each roadway segment to determine if the projected change in traffic volume would be significant.

Unlike the intersection level of service analysis methodology, which has established impact thresholds, the analyses contained in this section are based on professional judgment in accordance with the standards and methods employed by the traffic engineering community. Several studies have been made regarding the indirect impacts of traffic on residential neighborhoods. The variables affecting these impacts include traffic volumes, type, or makeup, of traffic (i.e. passenger cars, trucks, motorcycles, emergency vehicles, etc.), traffic speed, perception of through traffic as a percentage of total traffic, adequacy of street alignment (i.e., horizontal and vertical curvature), accident experience, on-street parking, residential dwelling setbacks from the street, pedestrian traffic, and street pavement conditions (which would add to traffic noise as the pavement deteriorates). Other factors that may be a contributor to neighborhood nuisance levels include socio-economic status of the neighborhood, and expectations of the residents regarding traffic volumes; however, these are beyond the purview of CEQA and are provided here for informational purposes only.

Existing Surrounding Roadway Characteristics

Each of the three selected roadway segments provide access to not only the residential land uses that line each street but also provide a connection between and/or to major arterials (Payne Avenue and Hamilton Avenue). Therefore, cut-through or commercial traffic is present along each of the streets. A brief description of each of the selected surrounding roadways is provided below:

- **Cadillac Drive** is a two-lane residential street that runs between Winchester Boulevard and Eden Avenue. The roadway is lined by residential land uses and provides direct access to the project site. On-street parking is allowed on both sides of Cadillac Drive. The posted speed limit along Cadillac Drive is 25 miles per hour (mph).
- **Eden Avenue** is a two-lane north-south collector street that runs parallel to Winchester Boulevard and provides a connection between Hamilton Avenue and Payne Avenue. There is an elementary school located at the northwest corner of the Eden Avenue and Hamilton Avenue intersection. On-street parking is allowed on both sides of Eden Avenue. The posted speed limit along Eden Avenue is 25 mph.

Both Cadillac Drive and Eden Avenue could be classified as residential streets given that they serve residential land uses and are narrow. General guidelines regarding threshold volumes pertaining to residential streets have been recommended within several studies and reference material including the Highway Capacity Manual (HCM). There is variation in these accepted threshold volumes, but in general, residential streets have the primary function of providing access to immediately adjacent land, with the secondary function of traffic movement. One lane of traffic in each direction is the standard for residential streets. A residential (or local) street is defined by the City of San Jose as being less than 60 feet wide (48 and 56 ft. right-of-way) and average daily traffic (ADT) volumes typically ranging from 50 to 2,000 vehicles.

Estimated Project Traffic on Surrounding Roadways

The effects of project traffic on each of the surrounding streets was evaluated based on field observations, the collection of traffic volume and speed data collected in April 2018, and projections of the additional project generated traffic. Table 13 presents a summary of existing and projected traffic volumes and speed along each of the studied streets.

Cadillac Drive, between Winchester Boulevard and Eden Avenue

Twenty-four-hour tube counts indicate that Cadillac Drive, between Winchester Boulevard and Eden Avenue, currently carries approximately 1,792 daily vehicles. It is estimated that the proposed project will result in the addition of 76 daily trips, an increase of four percent, to this study roadway segment.

Speed surveys conducted along Cadillac Drive, between Winchester Boulevard and Eden Avenue, indicate the 85th percentile speed along the roadway to be approximately 25 miles per hour (mph). The posted speed limit along the surveyed segment is 25 mph. Based on the collected data, the 85th percentile speed along Cadillac Drive is within the 25-mph posted speed limit. Therefore, it can be concluded that there is not an obvious speeding issue along Cadillac Drive, and the posted speed limit is adequate.

Eden Avenue, between Hamilton Avenue and Cadillac Drive

Twenty-four-hour tube counts indicate that Eden Avenue, between Hamilton Avenue and Cadillac Drive, currently carries approximately 5,075 daily vehicles. It is estimated that the proposed project will result in the addition of 32 daily trips, an increase of less than one percent, to this study segment.

Speed surveys conducted along Eden Avenue, between Hamilton Avenue and Cadillac Drive, revealed the 85th percentile speed along the roadway to be approximately 29 miles per hour (mph). The posted speed limit along the surveyed segment is 25 mph. Based on the collected data, the 85th percentile speeds along this study roadway segment exceed the posted speed limit by less than 5 mph.

Eden Avenue, between Cadillac Drive and Payne Avenue

Twenty-four-hour tube counts indicate that Eden Avenue, between Cadillac Drive and Payne Avenue, currently carries approximately 3,366 daily vehicles. It is estimated that the proposed project will result in the addition of 26 daily trips, an increase of less than one percent, to this study segment.

Speed surveys conducted along Eden Avenue, between Cadillac Drive and Payne Avenue, revealed the 85th percentile speed along the roadway to be approximately 27 miles per hour (mph). The posted speed limit along the surveyed segment is 25 mph. Based on the collected data, the 85th percentile speeds along this study roadway segment exceed the posted speed limit by less than 5 mph.

**Table 13
Roadway Segment Analysis**

#	Roadway Segment	Count Date	Direction	Speed (mph)		Existing ADT	Project Trips		Existing + Project ADT
				Limit	85 th Percentile		ADT	% Change	
1	Cadillac Drive, between Eden Avenue and Winchester Boulevard	04/24/18	Eastbound	25	25	1,011	43	4%	1,054
			Westbound	25	24	781	33	4%	814
			Total			1,792	76	4%	1,868
2	Eden Avenue, between Hamilton Avenue and Cadillac Drive	04/24/18	Northbound	25	28	2,875	26	1%	2,901
			Southbound	25	29	2,200	6	0%	2,206
			Total			5,075	32	1%	5,107
3	Eden Avenue, between Cadillac Drive and Payne Avenue	04/24/18	Northbound	25	27	1,924	18	1%	1,942
			Southbound	25	24	1,442	8	1%	1,450
			Total			3,366	26	1%	3,392

Recommendations for Surrounding Roadways

Based on the characteristics of the streets, the traffic count data, and the estimated project traffic, the following conclusions can be drawn:

- The added project trips to each of the studied street segments constitute a four percent or less increase from the existing volumes.
- Speeds along Cadillac Drive and Eden Avenue exceed the posted speed by less than 5 mph. Speeds within 5 mph of the posted speed limits are considered reasonable. Therefore, based on the speed surveys, it can be concluded that there is not an obvious speeding issue along these study roadway segments, and the posted speed limits are adequate.

7. Conclusions

The potential impacts of the project were evaluated in accordance with the standards set forth by the Cities of San Jose and Campbell and the Congestion Management Program (CMP) of Santa Clara County. The study included the analysis of AM and PM peak hour traffic conditions for two signalized intersections and four unsignalized intersections. Project impacts on other transportation facilities, such as bicycle facilities and transit service, were determined on the basis of engineering judgment.

Background Plus Project Intersection Level of Service Analysis

The results show the study intersections would not be significantly impacted by the project under background plus project conditions, according to the Cities of San Jose and Campbell and CMP impact criteria.

I-280/Winchester Boulevard Transportation Development Policy

The I-280/Winchester Boulevard interchange area Transportation Development Policy (TDP), adopted in September 2016, provides for additional capacity in the immediate area of the I-880/Stevens Creek Boulevard and I-280/Winchester Boulevard interchanges. The TDP provides partial funding, via a traffic impact fee imposed on proposed development, for the implementation of a new westbound off-ramp from I-280 to Winchester Boulevard to reduce traffic congestion at the I-880/Stevens Creek and Stevens Creek Boulevard corridors. The traffic fee is based on the estimated trips to be added to the new westbound off-ramp from I-280 to Winchester Boulevard by each individual development. It is estimated that the proposed project will result in no more than one peak hour trip to the planned I-280 to Winchester Boulevard ramp.

Freeway Segment Capacity

Per CMP technical guidelines, freeway segment level of service analysis shall be conducted on all segments to which the project is projected to add one percent or more to the segment capacity. Since the project is not projected to add one percent to any freeway segments in the area, freeway analysis for the CMP was not required.

Other Transportation Issues

Site Access

The project will be served by one access point to an on-site parking garage along Cadillac Drive. The parking garage will provide 119 on-site parking spaces. Vehicle queuing issues are not expected to occur at the parking garage entrance based on the relatively low number of project trips at the entrance and low traffic volumes on Cadillac Drive. The estimated peak hour volumes at the garage entrance equate to approximately one vehicle entering or exiting the entrance every two to three minutes.

Project Driveway Design

According to the City of San Jose municipal code, on-site drive aisles that serve two-way drive aisles must be a minimum of 26 feet wide and driveway widths should match the 26 feet wide drive aisles. The driveway on Cadillac Drive is shown to be 20 feet wide on the provided site plan. The driveway must be widened to 26 feet per the City's driveway design requirement.

Sight Distance at the Driveway Serving the Project

The project access point 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 Schiele Avenue. Any landscaping and signage should be located in such a way to ensure an unobstructed view for drivers exiting the site. Appropriate visible and/or audible warning signals should be provided at the garage entrance to alert pedestrians and bicyclists of vehicles exiting the parking garage.

Adequate sight distance (sight distance triangles) should be provided at the project driveway in accordance with the *American Association of State Highway Transportation Officials (AASHTO)* standards. The AASHTO stopping sight distance for a facility with a posted speed limit of 25 mph is 155 feet. Thus, a driver exiting the proposed project driveway on Cadillac Drive must be able to see 155 feet east and west along Cadillac Drive in order to stop and avoid a collision.

Based on the project site plan and observations in the field, vehicles exiting the project site driveway on Cadillac Drive would be able to see approaching traffic on eastbound Cadillac Drive at least 200 feet to the west. The driveway will be located approximately 100 feet west of the Winchester Boulevard and Cadillac Drive intersection. However, drivers would have full view of westbound traffic on Cadillac Drive at the Winchester Boulevard/Cadillac Drive intersection and vehicle speeds will be less than 25 mph when completing turn-movements through the intersection. Therefore, the sight distance from the proposed driveway location to the Winchester Boulevard/Cadillac Drive intersection should be adequate. It should also be noted that the existing site driveway along Cadillac Drive is located only 20 feet west of Winchester Boulevard. Therefore, the proposed relocation of site access will provide for additional spacing from Winchester Boulevard.

On-Site Circulation

On-site vehicular circulation was reviewed for the project in accordance with generally accepted traffic engineering standards. The ground floor parking level will provide 20 retail designated parking spaces and access to a ramp serving the three below grade parking levels. When entering the ground-floor parking level, drivers will proceed to the end of the drive aisle to access a ramp to the three underground parking levels.

The City's standard 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 parking spaces. As shown on the site plan, the drive aisles within the garage measure to be approximately 26 feet wide and would meet the City's requirement. Drive aisles less than 26 feet are adequate, where parking is located on only one side of the drive aisle. Drive aisles less than 26 feet wide with parking on both sides will require City's review and approval.

A dead-end aisle will exist at the end of the drive aisle on the third underground parking level of the garage. Dead end aisles are undesirable because drivers will enter the aisle, and upon discovering that there is no available parking, must back out or conduct three-point turns. In areas where parking spaces are designated for specific individuals, dead end aisles are less problematic. All locations where dead-end aisles are provided should be dedicated for employee use or assigned residential parking.

Truck Access

A trash room is shown on the ground floor level of the parking garage. Garbage trucks will not enter the parking garage. Therefore, trash bins will need to be wheeled out to Cadillac Drive via the parking garage entrance for garbage truck pickup.

According to the City of San Jose Municipal Code (20.90.410 - Required off-street loading spaces), the project is required to provide one off-street loading space. The site plan does not indicate that a loading space will be provided on-site. In lieu of providing off-street loading spaces, it is recommended that the project applicant work with City staff to determine the feasibility of providing a public loading zone on Cadillac Drive along the project frontage. The loading zone must be located a minimum of 20 feet from Winchester Boulevard. Based on the location of the proposed project garage entrance an approximately 60-foot public loading zone could be accommodated along Cadillac Drive.

Transit Services

The project site is served directly by VTA local bus line 60, which operates along Winchester Boulevard. The southbound and northbound bus stops for line 60 are located on Winchester Boulevard along the project's frontage and near Colonial Way, respectively. It can be assumed that some residents/employees of the proposed project would utilize the existing transit services. Applying an estimated three percent transit mode share, which is probably the highest that could be expected for the project, equates to approximately one new transit rider during the AM peak hour and two during the PM peak hour. Assuming the existing transit service would remain unchanged with line 60 providing service with 15-20-minute headways during the peak commute periods at bus stops along Winchester Boulevard, the estimated number of new transit rider using the bus stops located near the project site would equate to no more than two new riders per bus during the peak hours. VTA operations reports indicate that the 60-bus line as well as several other bus lines in the project area serve less than ideal ridership. Therefore, the new riders due to the proposed project could be accommodated by the current available capacity of the bus service in the study area and improvement of the existing transit service would not be necessary with the project.

Bicycle and Pedestrian Facilities

Currently, the Class II bike lane on Winchester Boulevard between Hamilton Avenue and Payne Avenue does not provide a direct connection to other bicycle facilities to the north and south.

The San Jose Bike Plan 2020 and Envision 2040 General Plan, as described below, identify planned improvements to the bicycle network within the City and provide policies and goals that are intended to

promote and encourage the use of multi-modal travel options and reduce the identified project impacts to the roadway system. The planned improvements to the bicycle network will provide the project site with improved connections to surrounding pedestrian/bike and transit facilities and a balanced transportation system as outlined in the Envision 2040 General Plan goals and policies.

Pedestrian traffic primarily would consist of residents and employees of the proposed project walking to and from surrounding retail establishments, as well as bus stops on Winchester Boulevard and Hamilton Avenue. Crosswalks with pedestrian signal heads are located at the David Avenue and Hamilton Avenue signalized intersections with Winchester Boulevard. However, pedestrian access to the bus stop along northbound Winchester Boulevard across from the project will require the use of crosswalks at the David Avenue intersection. This will require a pedestrian route of approximately 600 feet to the north versus an uncontrolled 200-foot long crossing of Winchester Boulevard. However, implementation of a crosswalk at Cadillac Drive is not recommended due to its close proximity to the David Avenue signalized intersection. All of the roadways in the vicinity of the project site have sidewalks on both sides of the street.

Public Transit/Pedestrian/Bike Improvements

The proposed project site is located within the Winchester Boulevard Urban Village Boundary and fronts Winchester Boulevard, which has been designated as a Grand Boulevard by the Envision San José 2040 General Plan. Sites within an Urban Village and located along a Grand Boulevard must incorporate additional urban design and architectural elements that will facilitate a building with pedestrian orientated design and activate the pedestrian public right-of-way.

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 operational issues on 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 be required to 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 in regard to 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 improvements for vehicular circulation.
- Give priority to pedestrian improvement projects that improve pedestrian safety, 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:

- Winchester Boulevard, between Payne Avenue and Moorpark Avenue
- Cypress Avenue, between Williams Road and Moorpark Avenue

Class III bike routes are planned for:

- Payne Avenue, between Winchester Boulevard and Greenbriar Avenue
- Greenbriar Avenue, between Payne Avenue and Westfield Avenue
- Westfield Avenue, between Greenbriar Avenue and Daniel Way

Transit Facility Improvements

The Envision 2040 General Plan identifies the following goals in regard to public transit:

- Pursue development of BRT, bus, shuttle, and fixed guideway services on designated streets and connections to major destinations.
- Ensure that roadways designated as Grand Boulevards adequately accommodate transit vehicle circulation and transit stops. Prioritize bus mobility along Stevens Creek Boulevard.

Winchester Boulevard between Moorpark Avenue and Impala Drive has been designated as a Grand Boulevard within the Envision 2040 General Plan. Grand Boulevards are intended to serve as major transportation corridors with priority given to public transit. Given that the project fronts Winchester Boulevard, the project shall be required to implement the following Grand Boulevard design principles:

- Provide a minimum 15 feet sidewalk width along its frontage on Winchester Boulevard
- Minimize driveway cuts to minimize transit delay
- Provide enhanced shelters for transit services

In addition, as a Grand Boulevard it is envisioned that Winchester Boulevard could potentially be included in the VTA Bus Rapid Transit (BRT) System. However, there are no plans at this time for a BRT line on Winchester.

There is a BRT line planned for the West San Carlos Street/Stevens Creek Boulevard corridor. The BRT will run on Stevens Creek Boulevard. Two BRT infrastructure solutions have been proposed: a single reversible transit-only lane between Winchester and MacArthur; and a dual-lane, transit-only overhead viaduct between Henry and MacArthur. The former option would include a center passing lane through the station loading areas, while the latter would include an aerial station.

The Stevens Creek Boulevard corridor serves as the primary access point to major retail/commercial destinations along Stevens Creek Boulevard and access to the area from the regional freeways of I-280 and I-880 is limited to their interchanges with Stevens Creek Boulevard. The proposed center lane BRT will require the removal of one travel lane in each direction of travel along a segment of Stevens Creek Boulevard between Winchester Boulevard and I-880 that is already congested. The removal of

vehicular capacity along the primary travel corridor will result in a significant increase in congestion on the segment. Therefore, it is recommended that future BRT service along Stevens Creek Boulevard between Winchester Boulevard and I-880 be accommodated within the existing travel lanes.

The West San Carlos Street/Stevens Creek Boulevard BRT is in only the preliminary stages of its environmental review and there is no identified schedule for its completion.

Parking

Vehicle Parking

Based on the City's parking requirements, the project is required to provide a total of 147 off-street parking spaces. The project is located in the Winchester Urban Village. The Urban Village Overlay allows for a 20 percent reduction in parking with the implementation of a Transportation Demand Management (TDM) plan. With the 20 percent reduction, the required parking would be reduced to 118 spaces. The project is proposing a total of 119 parking spaces, which would meet the City's parking requirements. The City has notified the applicant that they will not support a reduction in parking of greater than 20 percent due to the on-street parking issues discussed in the following section. The project will be required to submit and have approved by the City its TDM program for a maximum 20 percent reduction in off-street parking.

Surrounding On-Street Parking

The project site is located just outside the perimeter of the Cadillac Residential Parking Program (RPP) zone, where a permit is required to use on-street parking from 10:00 PM to 6:00 AM every day except on holidays. In order to obtain a parking permit, the applicant must live in or own a residential property or operate a business in a parking permit zone. Generally, this means that the residence or business must be located on the same side of the street and block face where permit parking signs are posted.

The maximum parking demand for the project during the 10:00 PM to 6:00 AM period when the RPP is enforced, would be approximately 70 vehicles. Therefore, the proposed 119 on-site spaces would be adequate to serve the project's parking demand during the time period when the RPP is enforced.

However, based on the survey data, the peak daily parking demand for the project would occur between the hours of 2:00 pm and 3:00 pm. Therefore, a parking count of Cadillac and Impala Drives was conducted on Wednesday May 30, 2018 from 1:00 PM to 2:00 PM to determine the availability of on-street parking during the project's peak parking demand period. The parking counts indicate that on-street parking on Cadillac and Impala Drives, between Winchester Boulevard and Eden Avenue, is very limited and would not be adequate to serve the project's parking demand that may not be met by the provided on-site parking. In addition, the parking demand for the project would exceed the provided on-site parking between the hours of 10:00 AM and 8:00 PM.

With the implementation of the required TDM plan, as described below, the project will provide adequate parking spaces on-site to satisfy its parking demand and will not have an effect on the Cadillac RPP.

Transportation Demand Management

In order to be granted a 20 percent reduction in required off-street parking per the Winchester Urban Village Plan, the project will be required to implement a TDM program with measures that will reduce the required on-site parking for the proposed project. The City has notified the applicant that they will not support a reduction in parking of greater than 20 percent due to the on-street parking issues. Therefore, the project will be required to implement TDM measures that result in a reduction in parking

demand of no more than 20 percent. The project will be required to submit and have approved by the City its TDM program for a maximum 20 percent reduction in off-street parking.

Bicycle Parking

The City's bicycle parking requirements for each of the project components (Section 20.90.060 Tables 20-190 and 20-210) are as follows: 1 parking space per 4 residential units, 1 parking space per 4,000 s.f. of office floor area, and 1 parking space per 3,000 s.f. of retail floor area. Based on these standard parking requirements, the project is required to provide 19 off-street bicycle parking spaces. The project site plan indicates that two bicycle storage rooms will be located within the ground level of the parking garage. The storage rooms are shown to provide space for a total of 48 bicycles. The proposed bicycle parking on-site will exceed the City's requirements and encourage the use of non-auto modes of travel and minimize the demand for on-site parking.

Effects on Surrounding Residential Streets

The proposed project site is adjacent to three major thoroughfares, Winchester Boulevard, Hamilton Avenue, and Payne Avenue. As proposed, direct access to the project site would be provided by a driveway on Cadillac Drive. It is estimated that the majority of the project traffic would utilize the major thoroughfares for travel. However, some project traffic could utilize Eden Avenue and Cadillac Drive for travel between the project site and other nearby destinations, such as schools, parks, shopping centers, and others. For this reason, an evaluation of the effects of project traffic along Eden Avenue and Cadillac Drive was completed. The evaluation consists of a roadway segment analysis to quantify the potential change in traffic volumes along the study roadway segments as a result of the proposed project. For the evaluation, the existing and projected daily traffic volumes with the project along the study roadway segments were compared to acceptable volume thresholds for each roadway segment to determine if the projected change in traffic volume would be significant.

Based on the characteristics of the streets, the traffic count data, and the estimated project traffic, the following conclusions can be drawn:

- The added project trips to each of the studied street segments constitute a four percent or less increase from the existing volumes.
- Speeds along Cadillac Drive and Eden Avenue exceed the posted speed by less than 5 mph. Speeds within 5 mph of the posted speed limits are considered reasonable. Therefore, based on the speed surveys, it can be concluded that there is not an obvious speeding issue along these study roadway segments, and the posted speed limits are adequate.

**1495 S. Winchester Boulevard Mixed-Use
Development Traffic Impact Analysis
Technical Appendices**

January 21, 2019

Appendix A

Traffic Counts



(303) 216-2439
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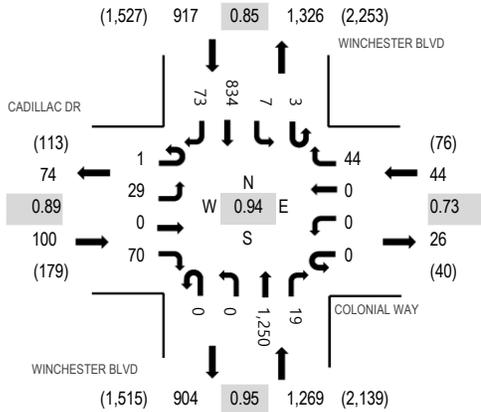
Location: 1 WINCHESTER BLVD & COLONIAL WAY AM

Date and Start Time: Tuesday, April 24, 2018

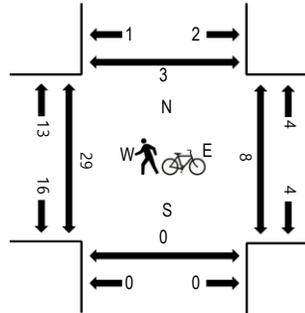
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	CADILLAC DR Eastbound				COLONIAL WAY Westbound				WINCHESTER BLVD Northbound				WINCHESTER BLVD Southbound				Total	Rolling Hour	Pedestrian 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	6	0	12	0	0	0	7	0	0	195	1	0	1	99	14	335	1,792	8	1	0	1
7:15 AM	0	7	0	20	0	0	0	6	0	0	223	2	0	2	135	13	408	2,076	4	3	1	0
7:30 AM	0	10	0	10	0	0	0	8	0	0	226	1	1	0	183	4	443	2,259	10	5	1	2
7:45 AM	0	11	0	19	0	0	0	8	0	0	288	5	0	4	246	25	606	2,330	5	1	0	1
8:00 AM	0	6	0	24	0	0	0	16	0	0	323	6	3	1	224	16	619	2,129	10	1	0	1
8:15 AM	0	4	0	17	0	0	0	9	0	0	332	3	0	1	211	14	591		8	3	0	0
8:30 AM	1	8	0	10	0	0	0	11	0	0	307	5	0	1	153	18	514		4	3	0	1
8:45 AM	0	10	0	4	0	0	0	11	0	0	217	5	0	2	148	8	405		7	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	1	28	0	68	0	0	0	44	0	0	1,226	19	3	7	817	71	2,284
Mediums	0	1	0	2	0	0	0	0	0	0	23	0	0	0	17	2	45
Total	1	29	0	70	0	0	0	44	0	0	1,250	19	3	7	834	73	2,330



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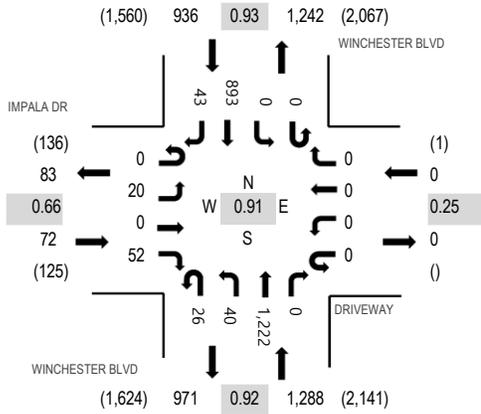
Location: 2 WINCHESTER BLVD & DRIVEWAY AM

Date and Start Time: Tuesday, April 24, 2018

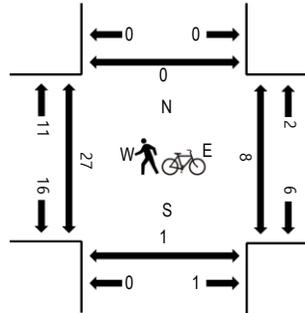
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	IMPALA DR Eastbound				DRIVEWAY Westbound				WINCHESTER BLVD Northbound				WINCHESTER BLVD Southbound				Total	Rolling Hour	Pedestrian 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	4	0	3	0	0	0	1	3	7	150	0	0	0	113	3	284	1,679	7	3	0	0
7:15 AM	0	4	0	10	0	0	0	0	5	8	222	0	0	0	145	5	399	2,023	4	1	0	0
7:30 AM	0	7	0	10	0	0	0	0	5	8	218	0	0	0	190	6	444	2,221	7	5	0	0
7:45 AM	0	10	0	19	0	0	0	0	10	5	251	0	0	0	242	15	552	2,296	6	3	0	0
8:00 AM	0	5	0	12	0	0	0	0	7	8	334	0	0	0	255	7	628	2,148	6	2	0	0
8:15 AM	0	3	0	7	0	0	0	0	5	13	309	0	0	0	248	12	597		7	3	1	0
8:30 AM	0	2	0	14	0	0	0	0	4	14	328	0	0	0	148	9	519		7	0	0	0
8:45 AM	0	6	0	9	0	0	0	0	9	5	213	0	0	0	151	11	404		4	1	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	3	0	4
Lights	0	20	0	52	0	0	0	0	26	39	1,200	0	0	0	875	41	2,253
Mediums	0	0	0	0	0	0	0	0	0	1	21	0	0	0	15	2	39
Total	0	20	0	52	0	0	0	0	26	40	1,222	0	0	0	893	43	2,296



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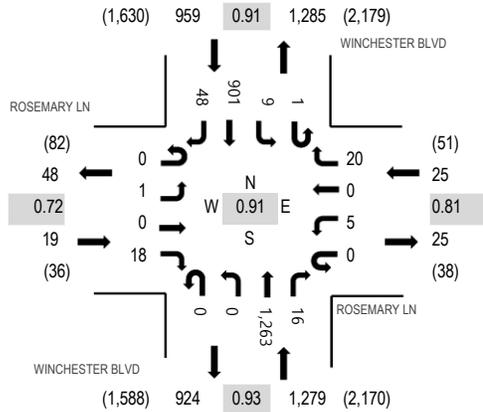
Location: 3 WINCHESTER BLVD & ROSEMARY LN AM

Date and Start Time: Tuesday, April 24, 2018

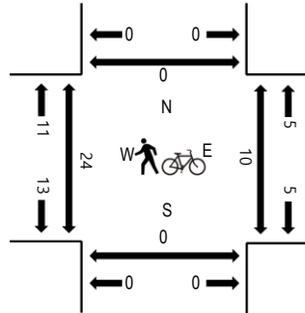
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	ROSEMARY LN Eastbound				ROSEMARY LN Westbound				WINCHESTER BLVD Northbound				WINCHESTER BLVD Southbound				Total	Rolling Hour	Pedestrian 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	1	0	0	3	0	6	0	1	0	0	169	2	0	1	111	3	297	1,748	3	0	0	0
7:15 AM	0	0	0	5	0	3	0	5	0	0	243	2	0	0	157	8	423	2,078	7	1	0	0
7:30 AM	0	0	0	5	0	1	0	2	0	0	226	4	0	2	209	15	464	2,237	4	0	0	1
7:45 AM	0	0	0	5	0	2	0	2	0	0	271	5	0	1	254	24	564	2,282	4	2	0	0
8:00 AM	0	0	0	8	0	0	0	7	0	0	343	1	0	3	252	13	627	2,139	7	1	0	0
8:15 AM	0	1	0	3	0	1	0	8	0	0	327	2	0	3	234	3	582		3	3	0	0
8:30 AM	0	0	0	2	0	2	0	3	0	0	322	8	1	2	161	8	509		6	1	0	0
8:45 AM	0	0	0	3	0	4	0	4	0	0	244	1	0	1	157	7	421		2	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	1	0	0	0	2	0	3
Lights	0	0	0	18	0	5	0	20	0	0	1,239	16	1	9	880	48	2,236
Mediums	0	1	0	0	0	0	0	0	0	0	23	0	0	0	19	0	43
Total	0	1	0	18	0	5	0	20	0	0	1,263	16	1	9	901	48	2,282



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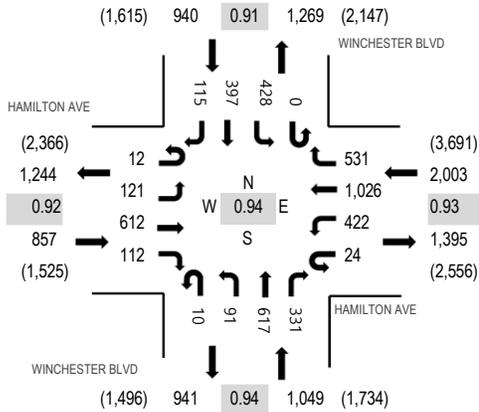
Location: 4 WINCHESTER BLVD & HAMILTON AVE AM

Date and Start Time: Tuesday, April 24, 2018

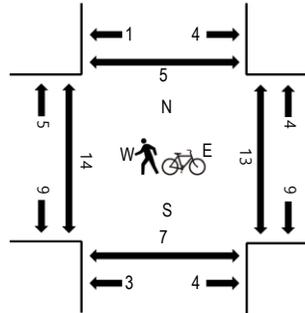
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:15 AM - 08:30 AM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	HAMILTON AVE Eastbound				HAMILTON AVE Westbound				WINCHESTER BLVD Northbound				WINCHESTER BLVD Southbound				Total	Rolling Hour	Pedestrian 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	1	12	113	15	5	34	196	96	0	10	72	55	0	78	34	14	735	3,978	3	0	1	1
7:15 AM	0	16	125	13	5	56	288	122	1	15	86	60	0	104	50	19	960	4,508	1	1	4	3
7:30 AM	1	26	127	7	0	84	293	106	1	21	99	65	0	99	96	27	1,052	4,831	4	4	4	1
7:45 AM	0	29	142	27	5	108	264	122	0	19	161	88	0	114	117	35	1,231	4,849	3	4	1	0
8:00 AM	5	34	161	36	4	118	255	152	1	31	128	72	0	106	130	32	1,265	4,587	3	3	3	1
8:15 AM	1	32	161	29	5	119	293	142	7	21	154	96	0	103	91	29	1,283		2	3	1	3
8:30 AM	6	26	148	20	10	77	214	115	2	20	174	75	0	105	59	19	1,070		2	2	2	1
8:45 AM	4	17	170	21	7	79	209	108	2	10	118	70	0	78	62	14	969		2	1	3	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	2	0	0	1	5	2	0	1	0	2	0	2	1	0	16
Lights	12	120	597	108	24	410	1,005	524	10	87	602	325	0	418	387	113	4,742
Mediums	0	1	13	4	0	11	16	5	0	3	15	4	0	8	9	2	91
Total	12	121	612	112	24	422	1,026	531	10	91	617	331	0	428	397	115	4,849



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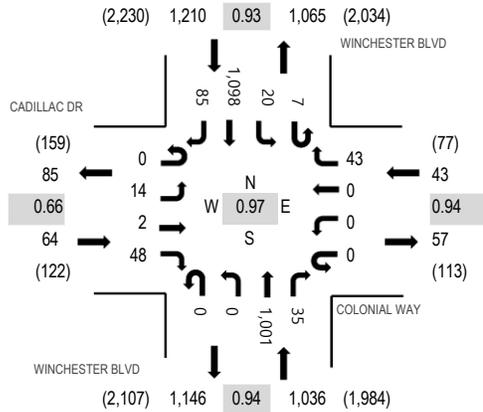
Location: 1 WINCHESTER BLVD & COLONIAL WAY PM

Date and Start Time: Tuesday, April 24, 2018

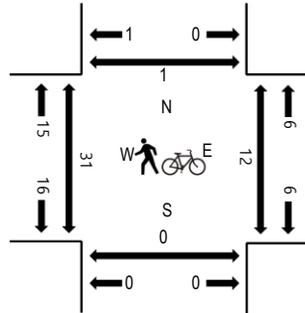
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	CADILLAC DR Eastbound				COLONIAL WAY Westbound				WINCHESTER BLVD Northbound				WINCHESTER BLVD Southbound				Total	Rolling Hour	Pedestrian 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	2	1	6	0	0	0	4	0	0	244	7	2	2	255	17	540	2,156	6	3	0	0
4:15 PM	0	7	0	5	0	0	0	9	0	0	211	14	2	6	216	25	495	2,222	13	4	0	0
4:30 PM	0	6	1	18	0	0	0	12	0	0	240	9	0	8	218	17	529	2,302	8	1	0	0
4:45 PM	0	5	1	14	0	0	0	12	0	0	223	11	1	3	307	15	592	2,353	7	3	0	0
5:00 PM	0	2	0	6	0	0	0	11	0	0	269	4	3	4	284	23	606	2,257	9	4	0	0
5:15 PM	0	0	0	11	0	0	0	10	0	0	264	12	3	7	248	20	575		0	2	0	0
5:30 PM	0	7	1	17	0	0	0	10	0	0	245	8	0	6	259	27	580		12	1	0	1
5:45 PM	0	2	0	10	0	0	0	9	0	0	218	5	1	3	233	15	496		10	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	1	0	1
Lights	0	14	2	48	0	0	0	42	0	0	994	34	7	20	1,087	85	2,333
Mediums	0	0	0	0	0	0	0	1	0	0	7	1	0	0	10	0	19
Total	0	14	2	48	0	0	0	43	0	0	1,001	35	7	20	1,098	85	2,353



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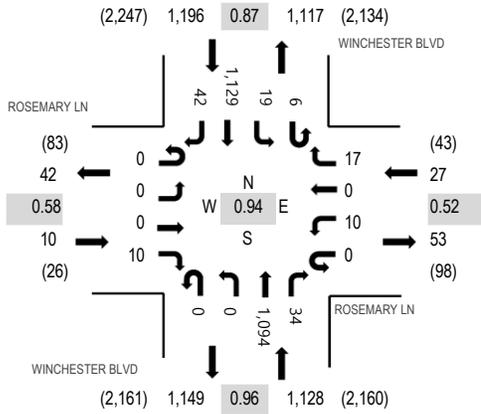
Location: 3 WINCHESTER BLVD & ROSEMARY LN PM

Date and Start Time: Tuesday, April 24, 2018

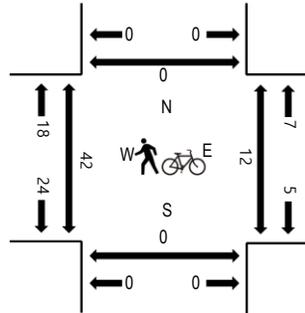
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - All Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts

Interval Start Time	ROSEMARY LN Eastbound				ROSEMARY LN Westbound				WINCHESTER BLVD Northbound				WINCHESTER BLVD Southbound				Total	Rolling Hour	Pedestrian 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	0	0	5	0	0	0	3	0	0	245	8	0	4	270	11	546	2,155	3	3	0	1
4:15 PM	0	0	0	2	0	2	0	4	0	0	241	10	0	4	197	9	469	2,238	6	0	0	0
4:30 PM	0	0	0	3	0	0	0	1	0	0	272	5	1	2	259	7	550	2,356	2	6	0	0
4:45 PM	0	0	0	2	0	1	0	3	0	0	269	8	2	3	296	6	590	2,361	10	4	0	0
5:00 PM	0	0	0	1	0	5	0	9	0	0	263	6	3	7	319	16	629	2,321	12	1	0	0
5:15 PM	0	0	0	4	0	2	0	4	0	0	289	6	0	6	268	8	587		3	5	0	0
5:30 PM	0	0	0	3	0	2	0	1	0	0	273	14	1	3	246	12	555		10	2	0	0
5:45 PM	0	1	0	5	0	2	0	4	0	0	245	6	0	6	267	14	550		16	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	0	0	10	0	9	0	17	0	0	1,086	34	6	18	1,117	42	2,339
Mediums	0	0	0	0	0	1	0	0	0	0	8	0	0	1	12	0	22
Total	0	0	0	10	0	10	0	17	0	0	1,094	34	6	19	1,129	42	2,361

EXISTING COUNTS

AM (PM) 04/24/18

CADILLAC DR

WINCHESTER BLVD

N-S

73 (85)

834 + 7 + 3 (1098 + 20 + 7)

70 + 29 (48)
+ 2 + 14

1250 + 44 + 29 + 3
(1001 + 43 + 14 + 7)

834 + 70 (1098 + 48)

3 + 7 + 29 (7 + 20 + 14 + 2)

44 (43)

COLONIAL WAY

1250 (1001)

19 (35)

ALL TRAFFIC DATA SERVICES

9660 W. 44TH AVE
WHEAT RIDGE, CO 80033
www.ALLTRAFFICDATA.NET

5SPEED
Date Start: 24-Apr-18
Date End: 24-Apr-18
Site Code: 5
CADILLAC DR W.O WINCHESTER BLVD

EB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
04/24/18	1	1	7	1	0	0	0	0	0	0	0	0	0	0	10	17-26	8
01:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	10-19	2
02:00	1	4	2	0	0	0	0	0	0	0	0	0	0	0	7	15-24	6
03:00	2	2	1	1	1	0	0	0	0	0	0	0	0	0	7	16-25	3
04:00	5	1	3	2	1	0	0	0	0	0	0	0	0	0	12	21-30	5
05:00	3	6	3	1	2	1	0	0	0	0	0	0	0	0	16	16-25	9
06:00	12	5	7	10	4	1	0	0	0	0	0	0	0	0	39	21-30	17
07:00	19	27	30	7	3	0	0	0	0	0	0	0	0	0	86	16-25	57
08:00	7	29	30	9	5	0	0	0	0	0	0	0	0	0	80	16-25	59
09:00	12	8	17	6	2	1	0	0	0	0	0	0	0	0	46	16-25	25
10:00	9	5	15	8	2	1	0	0	0	0	0	0	0	0	40	21-30	23
11:00	9	9	11	2	2	0	0	0	0	0	0	0	0	0	33	16-25	20
12 PM	11	8	17	11	2	0	0	0	0	0	0	0	0	0	49	21-30	28
13:00	10	6	11	7	0	0	0	0	0	0	0	0	0	0	34	19-28	18
14:00	11	19	33	8	3	1	0	0	0	0	0	0	0	0	75	16-25	52
15:00	22	14	30	15	1	1	0	0	0	0	0	0	0	0	83	21-30	45
16:00	21	15	29	10	3	0	0	0	0	0	0	0	0	0	78	16-25	44
17:00	24	19	19	8	2	0	0	0	0	0	0	0	0	0	72	16-25	38
18:00	21	20	18	3	3	0	0	0	0	0	0	0	0	0	65	16-25	38
19:00	16	17	9	3	0	0	0	0	0	0	0	0	0	0	45	16-25	26
20:00	15	13	13	6	2	0	0	0	0	0	0	0	0	0	49	16-25	26
21:00	11	12	11	4	0	1	0	0	0	0	0	0	0	0	39	16-25	23
22:00	10	7	9	3	1	0	0	0	0	0	0	0	0	0	30	16-25	16
23:00	4	2	5	0	3	0	0	0	0	0	0	0	0	0	14	16-25	7
Total	256	251	330	125	42	7	0	1011									
Percent	25.3%	24.8%	32.6%	12.4%	4.2%	0.7%	0.0%										
AM Peak	07:00	08:00	07:00	06:00	08:00	05:00									07:00		
Vol.	19	29	30	10	5	1									86		
PM Peak	17:00	18:00	14:00	15:00	14:00	14:00									15:00		
Vol.	24	20	33	15	3	1									83		
Total	256	251	330	125	42	7	0	1011									
Percent	25.3%	24.8%	32.6%	12.4%	4.2%	0.7%	0.0%										

15th Percentile : 8 MPH
50th Percentile : 19 MPH
85th Percentile : 25 MPH
95th Percentile : 29 MPH

Stats
10 MPH Pace Speed : 16-25 MPH
Number in Pace : 581
Percent in Pace : 57.5%
Number of Vehicles > 25 MPH : 174
Percent of Vehicles > 25 MPH : 17.2%
Mean Speed(Average) : 19 MPH

ALL TRAFFIC DATA SERVICES

9660 W. 44TH AVE
WHEAT RIDGE, CO 80033
www.ALLTRAFFICDATA.NET

5SPEED
Date Start: 24-Apr-18
Date End: 24-Apr-18
Site Code: 5
CADILLAC DR W.O WINCHESTER BLVD

WB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
04/24/18	3	1	1	0	0	0	0	0	0	0	0	0	0	0	5	16-25	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	6	1	0	0	0	0	0	0	0	0	0	0	0	0	7	6-15	4
03:00	1	0	1	1	0	0	0	0	0	0	0	0	0	0	3	19-28	2
04:00	2	2	2	0	0	0	0	0	0	0	0	0	0	0	6	15-24	4
05:00	2	3	2	3	0	0	0	0	0	0	0	0	0	0	10	15-24	5
06:00	6	7	8	2	0	0	0	0	0	0	0	0	0	0	23	16-25	15
07:00	23	22	16	6	2	0	0	0	0	0	0	0	0	0	69	16-25	38
08:00	14	9	14	7	1	0	0	0	0	0	0	0	0	0	45	16-25	23
09:00	14	8	5	2	0	0	0	0	0	0	0	0	0	0	29	11-20	13
10:00	2	3	10	2	0	0	1	0	0	0	0	0	0	0	18	16-25	13
11:00	8	7	6	3	1	0	0	0	0	0	0	0	0	0	25	16-25	13
12 PM	9	4	3	4	2	0	0	0	0	0	0	0	0	0	22	21-30	7
13:00	7	13	10	5	0	0	0	0	0	0	0	0	0	0	35	16-25	23
14:00	13	16	17	12	1	0	0	0	0	0	0	0	0	0	59	16-25	33
15:00	20	10	21	4	1	0	0	0	0	0	0	0	0	0	56	16-25	31
16:00	23	17	23	8	1	0	0	0	0	0	0	0	0	0	72	16-25	40
17:00	17	22	18	2	1	0	0	0	0	0	0	0	0	0	60	16-25	40
18:00	13	9	14	7	1	1	0	0	0	0	0	0	0	0	45	16-25	23
19:00	18	12	17	2	2	0	0	0	0	0	0	0	0	0	51	16-25	29
20:00	21	14	14	3	0	1	0	0	0	0	0	0	0	0	53	16-25	28
21:00	20	8	13	3	1	0	0	0	0	0	0	0	0	0	45	16-25	21
22:00	16	8	3	1	2	0	0	0	0	0	0	0	0	0	30	11-20	13
23:00	4	4	2	3	0	0	0	0	0	0	0	0	0	0	13	13-22	6
Total	262	200	220	80	16	2	1	0	781								
Percent	33.5%	25.6%	28.2%	10.2%	2.0%	0.3%	0.1%	0.0%									
AM Peak	07:00	07:00	07:00	08:00	07:00		10:00									07:00	
Vol.	23	22	16	7	2		1									69	
PM Peak	16:00	17:00	16:00	14:00	12:00	18:00										16:00	
Vol.	23	22	23	12	2	1										72	
Total	262	200	220	80	16	2	1	0	781								
Percent	33.5%	25.6%	28.2%	10.2%	2.0%	0.3%	0.1%	0.0%									

15th Percentile : 6 MPH
50th Percentile : 18 MPH
85th Percentile : 24 MPH
95th Percentile : 28 MPH

Stats
10 MPH Pace Speed : 16-25 MPH
Number in Pace : 420
Percent in Pace : 53.8%
Number of Vehicles > 25 MPH : 99
Percent of Vehicles > 25 MPH : 12.7%
Mean Speed(Average) : 17 MPH

ALL TRAFFIC DATA SERVICES

9660 W. 44TH AVE
WHEAT RIDGE, CO 80033
www.ALLTRAFFICDATA.NET

Untitled Vo
Date Start: 4/24/2018
Date End: 4/24/2018
Site Code: 5
CADILLAC DR W.O WINCHESTER BLVD

Start Time	4/24/2018 Tue	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		2	10			4	3				
12:15		2	15			0	6				
12:30		3	14			1	7				
12:45		3	10	10	49	0	6	5	22	15	71
01:00		1	8			0	12				
01:15		0	7			0	3				
01:30		1	9			0	13				
01:45		0	10	2	34	0	7	0	35	2	69
02:00		1	12			1	13				
02:15		0	9			0	13				
02:30		4	27			4	14				
02:45		2	27	7	75	2	19	7	59	14	134
03:00		2	24			2	10				
03:15		1	18			1	20				
03:30		3	18			0	12				
03:45		1	23	7	83	0	14	3	56	10	139
04:00		3	15			1	16				
04:15		2	18			2	19				
04:30		1	22			2	20				
04:45		6	23	12	78	1	17	6	72	18	150
05:00		0	16			1	17				
05:15		4	16			1	17				
05:30		9	23			7	13				
05:45		3	17	16	72	1	13	10	60	26	132
06:00		4	20			5	12				
06:15		7	16			3	10				
06:30		12	11			5	13				
06:45		16	18	39	65	10	10	23	45	62	110
07:00		27	12			11	15				
07:15		20	13			11	9				
07:30		21	10			21	14				
07:45		18	10	86	45	26	13	69	51	155	96
08:00		30	17			14	11				
08:15		23	10			6	14				
08:30		18	14			13	15				
08:45		9	8	80	49	12	13	45	53	125	102
09:00		12	8			5	17				
09:15		7	11			4	13				
09:30		18	14			13	9				
09:45		9	6	46	39	7	6	29	45	75	84
10:00		5	8			5	7				
10:15		9	7			2	5				
10:30		9	8			5	7				
10:45		17	7	40	30	6	11	18	30	58	60
11:00		6	5			4	3				
11:15		11	2			5	5				
11:30		10	4			11	3				
11:45		6	3	33	14	5	2	25	13	58	27
Total		378	633			240	541			618	1174
Percent		37.4%	62.6%			30.7%	69.3%			34.5%	65.5%
Grand Total		378	633			240	541			618	1174
Percent		37.4%	62.6%			30.7%	69.3%			34.5%	65.5%

ADT ADT 1,792 AADT 1,792

ALL TRAFFIC DATA SERVICES

9660 W. 44TH AVE
WHEAT RIDGE, CO 80033
www.ALLTRAFFICDATA.NET

6SPEED
Date Start: 24-Apr-18
Date End: 24-Apr-18
Site Code: 6
EDEN AVE S.O IMPALA DR

NB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
04/24/18	0	2	8	16	4	0	0	0	0	0	0	0	0	0	30	21-30	24
01:00	1	1	8	6	4	0	1	0	0	0	0	0	0	0	21	21-30	14
02:00	1	1	1	4	0	0	0	0	0	0	0	0	0	0	7	21-30	5
03:00	4	1	4	2	1	0	0	0	0	0	0	0	0	0	12	21-30	6
04:00	0	0	0	4	1	0	0	0	0	0	0	0	0	0	5	24-33	5
05:00	2	8	6	5	4	1	0	0	0	0	0	0	0	0	26	16-25	14
06:00	18	5	13	15	8	1	0	0	0	0	0	0	0	0	60	21-30	28
07:00	84	45	26	25	12	0	1	0	0	0	0	0	0	0	193	11-20	73
08:00	55	44	41	28	3	2	0	0	0	0	0	0	0	0	173	16-25	85
09:00	11	13	21	36	9	0	13	0	0	0	0	0	0	0	90	21-30	57
10:00	11	17	30	31	8	1	1	0	0	0	0	0	0	0	99	21-30	61
11:00	21	23	41	31	10	0	0	0	0	0	0	0	0	0	126	21-30	72
12 PM	11	17	39	38	12	0	0	0	0	0	0	0	0	0	117	21-30	77
13:00	17	13	49	40	11	0	0	0	0	0	0	0	0	0	130	21-30	89
14:00	72	62	57	21	2	0	0	0	0	0	0	0	0	0	214	16-25	119
15:00	17	41	85	70	17	0	2	0	0	0	0	0	0	0	232	21-30	155
16:00	26	40	85	62	14	0	0	0	0	0	0	0	0	0	227	21-30	147
17:00	55	48	96	54	14	1	0	0	0	0	0	0	0	0	268	21-30	150
18:00	12	48	83	61	9	0	2	0	0	0	0	0	0	0	215	21-30	144
19:00	19	34	59	60	10	1	1	0	0	0	0	0	0	0	184	21-30	119
20:00	9	32	62	53	6	0	0	0	0	0	0	0	0	0	162	21-30	115
21:00	6	24	45	42	11	4	0	0	0	0	0	0	0	0	132	21-30	87
22:00	3	14	37	32	13	3	0	0	0	0	0	0	0	0	102	21-30	69
23:00	2	1	20	17	10	0	0	0	0	0	0	0	0	0	50	21-30	37
Total	457	534	916	753	193	14	8	0	2875								
Percent	15.9%	18.6%	31.9%	26.2%	6.7%	0.5%	0.3%	0.0%									
AM Peak	07:00	07:00	08:00	09:00	07:00	08:00	01:00								07:00		193
Vol.	84	45	41	36	12	2	1										
PM Peak	14:00	14:00	17:00	15:00	15:00	21:00	15:00								17:00		268
Vol.	72	62	96	70	17	4	2										
Total	457	534	916	753	193	14	8	0	2875								
Percent	15.9%	18.6%	31.9%	26.2%	6.7%	0.5%	0.3%	0.0%									

15th Percentile : 14 MPH
50th Percentile : 22 MPH
85th Percentile : 28 MPH
95th Percentile : 31 MPH

Stats
10 MPH Pace Speed : 21-30 MPH
Number in Pace : 1669
Percent in Pace : 58.1%
Number of Vehicles > 25 MPH : 968
Percent of Vehicles > 25 MPH : 33.7%
Mean Speed(Average) : 22 MPH

ALL TRAFFIC DATA SERVICES

9660 W. 44TH AVE
WHEAT RIDGE, CO 80033
www.ALLTRAFFICDATA.NET

6SPEED
Date Start: 24-Apr-18
Date End: 24-Apr-18
Site Code: 6
EDEN AVE S.O IMPALA DR

SB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
04/24/18	1	1	5	4	0	1	0	0	0	0	0	0	0	0	12	21-30	9
01:00	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5	21-30	5
02:00	1	1	1	2	0	0	0	0	0	0	0	0	0	0	5	19-28	3
03:00	0	1	5	3	2	0	0	0	0	0	0	0	0	0	11	20-29	8
04:00	1	1	2	3	3	3	1	0	0	0	0	0	0	0	14	24-33	6
05:00	1	8	12	21	15	1	1	0	0	0	0	0	0	0	59	26-35	36
06:00	8	8	33	21	22	3	1	0	0	0	0	0	0	0	96	21-30	54
07:00	94	51	49	30	13	0	0	1	0	0	0	0	0	0	238	16-25	100
08:00	66	45	35	25	11	5	1	0	0	0	0	0	0	0	188	16-25	80
09:00	9	6	25	42	19	3	1	0	0	0	0	0	0	0	105	21-30	67
10:00	4	10	26	28	12	0	1	0	0	0	0	0	0	0	81	21-30	54
11:00	7	18	33	37	3	0	0	0	0	0	0	0	0	0	98	21-30	70
12 PM	3	16	27	40	9	1	0	0	0	0	0	0	0	0	96	21-30	67
13:00	14	19	33	26	10	1	0	0	0	0	0	0	0	0	103	21-30	59
14:00	66	51	33	18	3	1	0	0	0	0	0	0	0	0	172	16-25	84
15:00	21	17	47	37	10	0	1	0	0	0	0	0	0	0	133	21-30	84
16:00	20	15	42	47	23	2	0	0	0	0	0	0	0	0	149	21-30	89
17:00	19	36	52	42	10	2	0	0	0	0	0	0	0	0	161	21-30	94
18:00	7	16	58	33	11	0	0	0	0	0	0	0	0	0	125	21-30	91
19:00	10	22	45	32	8	1	0	0	0	0	0	0	0	0	118	21-30	77
20:00	4	16	30	18	6	2	0	0	0	0	0	0	0	0	76	21-30	48
21:00	7	12	35	22	9	2	0	0	0	0	0	0	0	0	87	21-30	57
22:00	1	2	19	9	6	0	0	0	0	0	0	0	0	0	37	21-30	28
23:00	0	8	9	9	4	1	0	0	0	0	0	0	0	0	31	19-28	18
Total	364	380	656	554	209	29	7	1	0	0	0	0	0	0	2200		
Percent	16.5%	17.3%	29.8%	25.2%	9.5%	1.3%	0.3%	0.0%									
AM Peak	07:00	07:00	07:00	09:00	06:00	08:00	04:00	07:00								07:00	
Vol.	94	51	49	42	22	5	1	1								238	
PM Peak	14:00	14:00	18:00	16:00	16:00	16:00	15:00									14:00	
Vol.	66	51	58	47	23	2	1									172	
Total	364	380	656	554	209	29	7	1	0	0	0	0	0	0	2200		
Percent	16.5%	17.3%	29.8%	25.2%	9.5%	1.3%	0.3%	0.0%									

15th Percentile : 13 MPH
50th Percentile : 22 MPH
85th Percentile : 29 MPH
95th Percentile : 33 MPH

Stats
10 MPH Pace Speed : 21-30 MPH
Number in Pace : 1210
Percent in Pace : 55.0%
Number of Vehicles > 25 MPH : 800
Percent of Vehicles > 25 MPH : 36.4%
Mean Speed(Average) : 22 MPH

ALL TRAFFIC DATA SERVICES

9660 W. 44TH AVE
WHEAT RIDGE, CO 80033
www.ALLTRAFFICDATA.NET

Untitled Vo
Date Start: 4/24/2018
Date End: 4/24/2018
Site Code: 6
EDEN AVE S.O IMPALA DR

Start Time	4/24/2018 Tue	NB		Hour Totals		SB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		7	21			3	20				
12:15		8	31			5	27				
12:30		7	30			4	30				
12:45		8	35	30	117	0	19	12	96	42	213
01:00		6	25			2	18				
01:15		6	42			2	27				
01:30		3	34			0	22				
01:45		6	29	21	130	1	36	5	103	26	233
02:00		4	37			2	40				
02:15		0	46			0	54				
02:30		3	61			1	49				
02:45		0	70	7	214	2	29	5	172	12	386
03:00		3	61			0	41				
03:15		5	65			4	30				
03:30		4	56			4	29				
03:45		0	50	12	232	3	33	11	133	23	365
04:00		0	59			3	41				
04:15		3	48			2	28				
04:30		2	50			2	39				
04:45		0	70	5	227	7	41	14	149	19	376
05:00		6	58			9	47				
05:15		6	64			14	34				
05:30		3	75			13	35				
05:45		11	71	26	268	23	45	59	161	85	429
06:00		12	52			17	40				
06:15		12	54			17	31				
06:30		15	55			27	32				
06:45		21	54	60	215	35	22	96	125	156	340
07:00		37	51			37	33				
07:15		45	52			42	39				
07:30		50	46			64	28				
07:45		61	35	193	184	95	18	238	118	431	302
08:00		63	33			83	15				
08:15		44	40			44	20				
08:30		39	45			34	19				
08:45		27	44	173	162	27	22	188	76	361	238
09:00		29	38			26	24				
09:15		18	33			28	26				
09:30		24	32			27	22				
09:45		19	29	90	132	24	15	105	87	195	219
10:00		26	27			26	14				
10:15		26	27			20	10				
10:30		28	33			14	6				
10:45		19	15	99	102	21	7	81	37	180	139
11:00		23	16			24	12				
11:15		24	13			30	5				
11:30		36	6			28	9				
11:45		43	15	126	50	16	5	98	31	224	81
Total		842	2033			912	1288			1754	3321
Percent		29.3%	70.7%			41.5%	58.5%			34.6%	65.4%
Grand Total		842	2033			912	1288			1754	3321
Percent		29.3%	70.7%			41.5%	58.5%			34.6%	65.4%

ADT ADT 5,075 AADT 5,075

ALL TRAFFIC DATA SERVICES

9660 W. 44TH AVE
WHEAT RIDGE, CO 80033
www.ALLTRAFFICDATA.NET

7SPEED
Date Start: 24-Apr-18
Date End: 24-Apr-18
Site Code: 7
EDEN AVE N.O LOMA VERDE DR

NB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
04/24/18	0	2	3	0	1	1	0	0	0	0	0	0	0	0	7	16-25	5
01:00	1	3	1	0	0	1	0	0	0	0	0	0	0	0	6	16-25	4
02:00	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2	*	1
03:00	1	2	2	1	1	0	1	0	0	0	0	0	0	0	8	16-25	4
04:00	1	2	6	0	1	0	0	0	0	0	0	0	0	0	10	16-25	8
05:00	0	7	17	15	6	0	0	0	0	0	0	0	0	0	45	21-30	32
06:00	2	16	40	24	4	1	1	0	0	0	0	0	0	0	88	21-30	64
07:00	17	62	68	38	6	3	0	0	0	0	0	0	0	0	194	16-25	130
08:00	18	24	52	37	4	3	0	0	0	0	0	0	0	0	138	21-30	89
09:00	10	20	30	29	7	0	1	0	0	0	0	0	0	0	97	21-30	59
10:00	5	13	43	22	7	1	0	0	0	0	0	0	0	0	91	21-30	65
11:00	12	15	30	18	5	0	1	0	0	0	0	0	0	0	81	21-30	48
12 PM	9	20	31	25	7	0	0	0	0	0	0	0	0	0	92	21-30	56
13:00	9	15	40	20	5	1	0	0	0	0	0	0	0	0	90	21-30	60
14:00	20	21	39	10	4	1	0	0	0	0	0	0	0	0	95	16-25	60
15:00	20	33	60	22	5	1	0	0	0	0	0	0	0	0	141	16-25	93
16:00	17	27	52	21	3	0	0	0	0	0	0	0	0	0	120	16-25	79
17:00	31	46	63	19	8	1	0	0	0	0	0	0	0	0	168	16-25	109
18:00	33	25	43	21	1	0	1	0	0	0	0	0	0	0	124	16-25	68
19:00	21	25	38	11	6	1	0	0	0	0	0	0	0	0	102	16-25	63
20:00	22	32	23	5	1	0	0	0	0	0	0	0	0	0	83	16-25	55
21:00	6	32	25	5	1	0	0	0	0	0	0	0	0	0	69	16-25	57
22:00	14	11	10	11	1	1	0	0	0	0	0	0	0	0	48	16-25	21
23:00	6	6	8	4	1	0	0	0	0	0	0	0	0	0	25	16-25	14
Total	276	459	724	359	85	16	5	0	1924								
Percent	14.3%	23.9%	37.6%	18.7%	4.4%	0.8%	0.3%	0.0%									
AM Peak	08:00	07:00	07:00	07:00	09:00	07:00	03:00								07:00		
Vol.	18	62	68	38	7	3	1								194		
PM Peak	18:00	17:00	17:00	12:00	17:00	13:00	18:00								17:00		
Vol.	33	46	63	25	8	1	1								168		
Total	276	459	724	359	85	16	5	0	1924								
Percent	14.3%	23.9%	37.6%	18.7%	4.4%	0.8%	0.3%	0.0%									

15th Percentile : 15 MPH
50th Percentile : 21 MPH
85th Percentile : 27 MPH
95th Percentile : 30 MPH

Stats
10 MPH Pace Speed : 16-25 MPH
Number in Pace : 1183
Percent in Pace : 61.5%
Number of Vehicles > 25 MPH : 465
Percent of Vehicles > 25 MPH : 24.2%
Mean Speed(Average) : 21 MPH

ALL TRAFFIC DATA SERVICES

9660 W. 44TH AVE
WHEAT RIDGE, CO 80033
www.ALLTRAFFICDATA.NET

7SPEED
Date Start: 24-Apr-18
Date End: 24-Apr-18
Site Code: 7
EDEN AVE N.O LOMA VERDE DR

SB

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	Pace Speed	Number in Pace
04/24/18	2	3	5	1	0	0	0	0	0	0	0	0	0	0	0	11	16-25	8
01:00	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	5	16-25	5
02:00	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	5	16-25	4
03:00	0	1	2	0	1	0	0	0	0	0	0	0	0	0	0	4	15-24	3
04:00	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	6	16-25	5
05:00	2	5	1	0	0	0	0	0	0	0	0	0	0	0	0	8	11-20	6
06:00	8	12	9	2	0	0	0	0	0	0	0	0	0	0	0	31	16-25	21
07:00	16	36	29	5	1	0	0	0	0	0	0	0	0	0	0	87	16-25	65
08:00	18	28	32	9	0	0	0	0	0	0	0	0	0	0	0	87	16-25	60
09:00	7	10	20	1	1	1	0	1	0	0	0	0	0	0	0	41	16-25	30
10:00	13	10	11	9	2	1	0	0	0	0	0	0	0	0	0	46	16-25	21
11:00	7	14	23	12	4	1	0	0	0	0	0	0	0	0	0	61	16-25	37
12 PM	10	8	26	11	3	0	0	0	0	0	0	0	0	0	0	58	21-30	37
13:00	6	17	27	13	0	0	0	0	0	0	0	0	0	0	0	63	16-25	44
14:00	14	22	60	22	2	0	0	0	0	0	0	0	0	0	0	120	16-25	82
15:00	28	21	43	17	1	1	0	0	0	0	0	0	0	0	0	111	16-25	64
16:00	18	28	50	23	2	0	0	0	0	0	0	0	0	0	0	121	16-25	78
17:00	27	43	53	12	2	0	0	0	0	0	0	0	0	0	0	137	16-25	96
18:00	22	32	38	12	0	0	0	0	0	0	0	0	0	0	0	104	16-25	70
19:00	24	30	40	8	0	0	0	0	0	0	0	0	0	0	0	102	16-25	70
20:00	16	26	38	3	0	0	0	0	0	0	0	0	0	0	0	83	16-25	64
21:00	8	37	20	3	1	0	0	0	0	0	0	0	0	0	0	69	16-25	57
22:00	8	17	18	3	1	0	0	0	0	0	0	0	0	0	0	47	16-25	35
23:00	3	7	21	3	1	0	0	0	0	0	0	0	0	0	0	35	16-25	28
Total	259	410	577	169	22	4	0	1	0	1442								
Percent	18.0%	28.4%	40.0%	11.7%	1.5%	0.3%	0.0%	0.1%	0.0%									
AM Peak	08:00	07:00	08:00	11:00	11:00	09:00		09:00									07:00	
Vol.	18	36	32	12	4	1		1									87	
PM Peak	15:00	17:00	14:00	16:00	12:00	15:00											17:00	
Vol.	28	43	60	23	3	1											137	
Total	259	410	577	169	22	4	0	1	0	1442								
Percent	18.0%	28.4%	40.0%	11.7%	1.5%	0.3%	0.0%	0.1%	0.0%									

15th Percentile : 12 MPH
50th Percentile : 20 MPH
85th Percentile : 24 MPH
95th Percentile : 28 MPH

Stats
10 MPH Pace Speed : 16-25 MPH
Number in Pace : 987
Percent in Pace : 68.4%
Number of Vehicles > 25 MPH : 196
Percent of Vehicles > 25 MPH : 13.6%
Mean Speed(Average) : 20 MPH

ALL TRAFFIC DATA SERVICES

9660 W. 44TH AVE
WHEAT RIDGE, CO 80033
www.ALLTRAFFICDATA.NET

Untitled Vo
Date Start: 4/24/2018
Date End: 4/24/2018
Site Code: 7
EDEN AVE N.O LOMA VERDE DR

Start Time	4/24/2018 Tue	NB		Hour Totals		SB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		3	25			3	15				
12:15		4	22			6	14				
12:30		0	19			0	18				
12:45		0	26	7	92	2	11	11	58	18	150
01:00		1	19			0	15				
01:15		3	23			2	17				
01:30		0	23			3	13				
01:45		2	25	6	90	0	18	5	63	11	153
02:00		0	21			2	26				
02:15		0	21			0	27				
02:30		1	25			2	33				
02:45		1	28	2	95	1	34	5	120	7	215
03:00		1	36			1	33				
03:15		1	34			0	24				
03:30		1	39			3	24				
03:45		5	32	8	141	0	30	4	111	12	252
04:00		2	27			1	29				
04:15		0	31			0	28				
04:30		5	29			3	31				
04:45		3	33	10	120	2	33	6	121	16	241
05:00		6	36			1	33				
05:15		6	40			2	40				
05:30		17	46			3	31				
05:45		16	46	45	168	2	33	8	137	53	305
06:00		20	28			4	29				
06:15		13	28			7	28				
06:30		31	40			9	22				
06:45		24	28	88	124	11	25	31	104	119	228
07:00		31	19			13	32				
07:15		30	33			20	24				
07:30		72	31			25	26				
07:45		61	19	194	102	29	20	87	102	281	204
08:00		42	24			36	24				
08:15		39	21			15	21				
08:30		35	21			26	15				
08:45		22	17	138	83	10	23	87	83	225	166
09:00		37	17			7	22				
09:15		14	21			13	20				
09:30		23	19			9	16				
09:45		23	12	97	69	12	11	41	69	138	138
10:00		25	16			14	11				
10:15		21	13			10	13				
10:30		30	12			12	11				
10:45		15	7	91	48	10	12	46	47	137	95
11:00		21	8			17	14				
11:15		17	3			9	6				
11:30		21	8			18	8				
11:45		22	6	81	25	17	7	61	35	142	60
Total		767	1157			392	1050			1159	2207
Percent		39.9%	60.1%			27.2%	72.8%			34.4%	65.6%
Grand Total		767	1157			392	1050			1159	2207
Percent		39.9%	60.1%			27.2%	72.8%			34.4%	65.6%

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1495 Winchester Boulevard Driveway Counts

DATE: 5/16/18

Peak Hour

AM	IN	OUT
7:00	1	0
7:15	1	0
7:30	0	0
7:45	0	0
8:00	0	1
8:15	1	0
8:30	0	0
8:45	0	0

IN	OUT	Total
2	0	2
1	1	2
1	1	2
1	1	2
1	1	2

PM	IN	OUT
4:00	0	5
4:15	0	0
4:30	0	0
4:45	0	0
5:00	0	0
5:15	0	0
5:30	0	0
5:45	0	0

IN	OUT	Total
0	5	5
0	0	0
0	0	0
0	0	0
0	0	0

Appendix B

Intersection Volume Summaries

Intersection Number: 1
 Traffix Node Number: 3882
 Intersection Name: Winchester Boulevard and David Avenue/Williamsburg Drive
 Peak Hour: AM
 Count Date: 10/26/16

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	36	741	14	75	7	46	42	1203	89	42	3	52	2350
Project Trips Under Existing + Project	0	6	0	0	0	0	0	4	11	0	0	0	21
Existing Plus Project Conditions	36	747	14	75	7	46	42	1207	100	42	3	52	2371
<u>San Jose ATI</u>													
Santana Row West	0	8	0	0	0	0	0	62	0	0	0	0	70
Santana Row Lot 11	0	3	0	0	0	0	0	19	0	0	0	0	22
Santana Row Lots 9 & 17	0	4	0	0	0	0	0	29	0	0	0	0	33
Valley Fair Expansion	0	9	0	0	0	0	0	14	0	0	0	0	23
Winchester Reserve	0	35	0	0	0	0	0	10	0	0	0	0	45
North San Jose	0	-4	0	0	0	0	0	-28	0	0	0	0	-32
<u>Campbell ATI</u>	0	14	0	0	0	0	0	8	0	0	0	0	22
Total	0	69	0	0	0	0	0	114	0	0	0	0	183
<u>Reassignment of Existing Traffic due to Winchester Blvd Improvements</u>	0	0	0	0	0	0	0	-25	0	0	0	12	-13
Background Conditions	36	810	14	75	7	46	42	1292	89	42	3	64	2520
Project Trips Under Background + Project	0	6	0	0	0	0	0	2	11	0	0	1	20
Background Plus Project Conditions	36	816	14	75	7	46	42	1294	100	42	3	65	2540

Intersection Number: 2
 Traffix Node Number: 201
 Intersection Name: Winchester Boulevard and Cadillac Drive
 Peak Hour: AM
 Count Date: 4/24/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	73	844	0	0	0	0	0	1326	0	99	0	0	2342
Project Trips Under Existing + Project	17	0	0	0	0	0	0	15	0	15	0	0	47
Existing Plus Project Conditions	90	844	0	0	0	0	0	1341	0	114	0	0	2389
<u>San Jose ATI</u>													
Santana Row West	0	8	0	0	0	0	0	62	0	0	0	0	70
Santana Row Lots 9 & 17	0	4	0	0	0	0	0	29	0	0	0	0	33
Valley Fair Expansion	0	9	0	0	0	0	0	14	0	0	0	0	23
Winchester Reserve	0	35	0	0	0	0	0	10	0	0	0	0	45
North San Jose	0	-4	0	0	0	0	0	-28	0	0	0	0	-32
<u>Campbell ATI</u>	0	14	0	0	0	0	0	8	0	0	0	0	22
Total	0	66	0	0	0	0	0	95	0	0	0	0	161
<u>Reassignment of Existing Traffic due to Winchester Blvd Improvements</u>	0	0	0	0	0	0	0	-25	0	-15	0	0	-40
Background Conditions	73	910	0	0	0	0	0	1396	0	84	0	0	2463
Project Trips Under Background + Project	17	0	0	0	0	0	0	13	0	13	0	0	43
Background Plus Project Conditions	90	910	0	0	0	0	0	1409	0	97	0	0	2506

Intersection Number: 3
 Traffix Node Number: 202
 Intersection Name: Winchester Boulevard and Colonial Way
 Peak Hour: AM
 Count Date: 4/24/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	904	39	44	0	0	19	1250	0	0	0	0	2256
Project Trips Under Existing + Project	0	11	4	0	0	0	0	11	0	0	0	0	26
Existing Plus Project Conditions	0	915	43	44	0	0	19	1261	0	0	0	0	2282
<u>San Jose ATI</u>													
Santana Row West	0	8	0	0	0	0	0	62	0	0	0	0	70
Santana Row Lots 9 & 17	0	4	0	0	0	0	0	29	0	0	0	0	33
Valley Fair Expansion	0	9	0	0	0	0	0	14	0	0	0	0	23
Winchester Reserve	0	35	0	0	0	0	0	10	0	0	0	0	45
North San Jose	0	-4	0	0	0	0	0	-28	0	0	0	0	-32
<u>Campbell ATI</u>	0	14	0	0	0	0	0	8	0	0	0	0	22
Total	0	66	0	0	0	0	0	95	0	0	0	0	161
<u>Reassignment of Existing Traffic due to Winchester Blvd Improvements</u>	0	15	-29	0	0	0	0	5	0	0	0	0	-9
Background Conditions	0	985	10	44	0	0	19	1350	0	0	0	0	2408
Project Trips Under Background + Project	0	13	0	0	0	0	0	13	0	0	0	0	26
Background Plus Project Conditions	0	998	10	44	0	0	19	1363	0	0	0	0	2434

Intersection Number: 4
 Traffic Node Number: 203
 Intersection Name: Winchester Boulevard and Impala Drive
 Peak Hour: AM
 Count Date: 4/24/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	43	893	0	0	0	0	0	1222	66	52	0	20	2296
Project Trips Under Existing + Project	0	11	0	0	0	0	0	11	0	0	0	0	22
Existing Plus Project Conditions	43	904	0	0	0	0	0	1233	66	52	0	20	2318
<u>San Jose ATI</u>													
Santana Row West	0	8	0	0	0	0	0	62	0	0	0	0	70
Santana Row Lots 9 & 17	0	4	0	0	0	0	0	29	0	0	0	0	33
Valley Fair Expansion	0	9	0	0	0	0	0	14	0	0	0	0	23
Winchester Reserve	0	35	0	0	0	0	0	10	0	0	0	0	45
North San Jose	0	-4	0	0	0	0	0	-28	0	0	0	0	-32
<u>Campbell ATI</u>	0	14	0	0	0	0	0	8	0	0	0	0	22
Total	0	66	0	0	0	0	0	95	0	0	0	0	161
<u>Reassignment of Existing Traffic due to Winchester Blvd Improvements</u>	0	15	0	0	0	0	0	25	5	10	0	-20	35
Background Conditions	43	974	0	0	0	0	0	1342	71	62	0	0	2492
Project Trips Under Background + Project	0	13	0	0	0	0	0	13	0	0	0	0	26
Background Plus Project Conditions	43	987	0	0	0	0	0	1355	71	62	0	0	2518

Intersection Number: 5
 Traffix Node Number: 204
 Intersection Name: Winchester Boulevard and Rosemary Lane
 Peak Hour: AM
 Count Date: 4/24/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	48	901	10	20	0	5	16	1263	0	18	0	1	2282
Project Trips Under Existing + Project	0	11	0	0	0	0	0	11	0	0	0	0	22
Existing Plus Project Conditions	48	912	10	20	0	5	16	1274	0	18	0	1	2304
<u>San Jose ATI</u>													
Santana Row West	0	8	0	0	0	0	0	62	0	0	0	0	70
Santana Row Lots 9 & 17	0	4	0	0	0	0	0	29	0	0	0	0	33
Valley Fair Expansion	0	9	0	0	0	0	0	14	0	0	0	0	23
Winchester Reserve	0	35	0	0	0	0	0	10	0	0	0	0	45
North San Jose	0	-4	0	0	0	0	0	-28	0	0	0	0	-32
<u>Campbell ATI</u>	0	14	0	0	0	0	0	8	0	0	0	0	22
Total	0	66	0	0	0	0	0	95	0	0	0	0	161
<u>Reassignment of Existing Traffic due to Winchester Blvd Improvements</u>	0	40	-10	5	0	-5	9	27	0	1	0	-1	66
Background Conditions	48	1007	0	25	0	0	25	1385	0	19	0	0	2509
Project Trips Under Background + Project	0	13	0	0	0	0	0	13	0	0	0	0	26
Background Plus Project Conditions	48	1020	0	25	0	0	25	1398	0	19	0	0	2535

Intersection Number: 6
 Traffix Node Number: 102
 Intersection Name: Winchester Boulevard and Hamilton Avenue
 Peak Hour: AM
 Count Date: 4/24/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	115	397	428	531	1026	446	331	617	101	112	612	133	4849
Project Trips Under Existing + Project	2	2	7	9	0	0	0	2	0	0	0	0	22
Existing Plus Project Conditions	117	399	435	540	1026	446	331	619	101	112	612	133	4871
<u>San Jose ATI</u>													
Santana Row West	2	5	2	12	0	0	0	37	0	0	0	12	70
Santana Row Lots 9 & 17	1	2	1	6	0	0	0	17	0	0	0	6	33
Valley Fair Expansion	3	3	3	5	0	0	0	5	0	0	0	5	24
Winchester Reserve	0	6	29	7	0	0	0	2	0	0	0	0	44
North San Jose	0	-2	-2	-2	-4	-2	-16	-35	-5	5	48	9	-6
<u>Campbell ATI</u>	0	3	11	3	4	12	12	5	1	2	21	0	74
Total	6	17	44	31	0	10	-4	31	-4	7	69	32	239
<u>Reassignment of Existing Traffic due to Winchester Blvd Improvements</u>	0	0	36	0	0	0	0	0	0	0	0	0	36
Background Conditions	121	414	508	562	1026	456	327	648	97	119	681	165	5124
Project Trips Under Background + Project	2	2	9	9	0	0	0	2	0	0	0	0	24
Background Plus Project Conditions	123	416	517	571	1026	456	327	650	97	119	681	165	5148

Intersection Number: 1
 Traffix Node Number: 3882
 Intersection Name: Winchester Boulevard and David Avenue/Williamsburg Drive
 Peak Hour: PM
 Count Date: 10/26/16

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	28	1109	57	28	2	42	50	915	123	35	4	26	2419
Project Trips Under Existing + Project	0	7	0	0	0	0	0	5	10	0	0	0	22
Existing Plus Project Conditions	28	1116	57	28	2	42	50	920	133	35	4	26	2441
<u>San Jose ATI</u>													
Santana Row West	0	55	0	0	0	0	0	10	0	0	0	0	65
Santana Row Lot 11	0	18	0	0	0	0	0	11	0	0	0	0	29
Santana Row Lots 9 & 17	0	27	0	0	0	0	0	9	0	0	0	0	36
Valley Fair Expansion	0	44	0	0	0	0	0	41	0	0	0	0	85
Winchester Reserve	0	22	0	0	0	0	0	41	0	0	0	0	63
North San Jose	0	-10	0	0	0	0	0	18	0	0	0	0	8
<u>Campbell ATI</u>	0	15	0	0	0	0	0	13	0	0	0	0	28
Total	0	171	0	0	0	0	0	143	0	0	0	0	314
<u>Reassignment of Existing Traffic due to Winchester Blvd Improvements</u>	0	0	0	0	0	0	0	-14	0	0	0	7	-7
Background Conditions	28	1280	57	28	2	42	50	1044	123	35	4	33	2726
Project Trips Under Background + Project	0	7	0	0	0	0	0	2	10	0	0	1	20
Background Plus Project Conditions	28	1287	57	28	2	42	50	1046	133	35	4	34	2746

Intersection Number: 2
 Traffix Node Number: 201
 Intersection Name: Winchester Boulevard and Cadillac Drive
 Peak Hour: PM
 Count Date: 4/24/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	85	1125	0	0	0	0	0	1065	0	64	0	0	2339
Project Trips Under Existing + Project	17	0	0	0	0	0	0	15	0	22	0	0	54
Retail Passby	3	-3	0	0	0	0	0	0	0	3	0	0	3
Total	20	-3	0	0	0	0	0	15	0	25	0	0	57
Existing Plus Project Conditions	105	1122	0	0	0	0	0	1080	0	89	0	0	2396
<u>San Jose ATI</u>													
Santana Row West	0	55	0	0	0	0	0	10	0	0	0	0	65
Santana Row Lots 9 & 17	0	27	0	0	0	0	0	9	0	0	0	0	36
Valley Fair Expansion	0	44	0	0	0	0	0	41	0	0	0	0	85
Winchester Reserve	0	22	0	0	0	0	0	41	0	0	0	0	63
North San Jose	0	-10	0	0	0	0	0	18	0	0	0	0	8
<u>Campbell ATI</u>	0	15	0	0	0	0	0	13	0	0	0	0	28
Total	0	153	0	0	0	0	0	132	0	0	0	0	285
<u>Reassignment of Existing Traffic due to Winchester Blvd Improvements</u>	0	0	0	0	0	0	0	-14	0	-8	0	0	-22
Background Conditions	85	1278	0	0	0	0	0	1183	0	56	0	0	2602
Project Trips Under Background + Project	17	0	0	0	0	0	0	12	0	19	0	0	48
Retail Passby	3	-3	0	0	0	0	0	0	0	3	0	0	3
Total	20	-3	0	0	0	0	0	12	0	22	0	0	51
Background Plus Project Conditions	105	1275	0	0	0	0	0	1195	0	78	0	0	2653

Intersection Number: 3
 Traffic Node Number: 202
 Intersection Name: Winchester Boulevard and Colonial Way
 Peak Hour: PM
 Count Date: 4/24/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	1146	43	43	0	0	35	1001	0	0	0	0	2268
Project Trips Under Existing + Project	0	17	5	0	0	0	0	10	0	0	0	0	32
Existing Plus Project Conditions	0	1163	48	43	0	0	35	1011	0	0	0	0	2300
<u>San Jose ATI</u>													
Santana Row West	0	55	0	0	0	0	0	10	0	0	0	0	65
Santana Row Lots 9 & 17	0	27	0	0	0	0	0	9	0	0	0	0	36
Valley Fair Expansion	0	44	0	0	0	0	0	41	0	0	0	0	85
Winchester Reserve	0	22	0	0	0	0	0	41	0	0	0	0	63
North San Jose	0	-10	0	0	0	0	0	18	0	0	0	0	8
<u>Campbell ATI</u>	0	15	0	0	0	0	0	13	0	0	0	0	28
Total	0	153	0	0	0	0	0	132	0	0	0	0	285
<u>Reassignment of Existing Traffic due to Winchester Blvd Improvements</u>	0	8	-16	0	0	0	0	2	0	0	0	0	-6
Background Conditions	0	1307	27	43	0	0	35	1135	0	0	0	0	2547
Project Trips Under Background + Project	0	19	0	0	0	0	0	12	0	0	0	0	31
Background Plus Project Conditions	0	1326	27	43	0	0	35	1147	0	0	0	0	2578

Intersection Number: 4
 Traffix Node Number: 203
 Intersection Name: Winchester Boulevard and Impala Drive
 Peak Hour: PM
 Count Date: 4/24/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	44	1116	0	0	0	0	0	1022	90	33	0	12	2317
Project Trips Under Existing + Project	0	17	0	0	0	0	0	10	0	0	0	0	27
Existing Plus Project Conditions	44	1133	0	0	0	0	0	1032	90	33	0	12	2344
<u>San Jose ATI</u>													
Santana Row West	0	55	0	0	0	0	0	10	0	0	0	0	65
Santana Row Lots 9 & 17	0	27	0	0	0	0	0	9	0	0	0	0	36
Valley Fair Expansion	0	44	0	0	0	0	0	41	0	0	0	0	85
Winchester Reserve	0	22	0	0	0	0	0	41	0	0	0	0	63
North San Jose	0	-10	0	0	0	0	0	18	0	0	0	0	8
<u>Campbell ATI</u>	0	15	0	0	0	0	0	13	0	0	0	0	28
Total	0	153	0	0	0	0	0	132	0	0	0	0	285
<u>Reassignment of Existing Traffic due to Winchester Blvd Improvements</u>	0	8	0	0	0	0	0	14	10	6	0	-12	26
Background Conditions	44	1277	0	0	0	0	0	1168	100	39	0	0	2628
Project Trips Under Background + Project	0	19	0	0	0	0	0	12	0	0	0	0	31
Background Plus Project Conditions	44	1296	0	0	0	0	0	1180	100	39	0	0	2659

Intersection Number: 5
 Traffix Node Number: 204
 Intersection Name: Winchester Boulevard and Rosemary Lane
 Peak Hour: PM
 Count Date: 4/24/18

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	42	1129	25	17	0	10	34	1094	0	10	0	0	2361
Project Trips Under Existing + Project	0	17	0	0	0	0	0	10	0	0	0	0	27
Existing Plus Project Conditions	42	1146	25	17	0	10	34	1104	0	10	0	0	2388
<u>San Jose ATI</u>													
Santana Row West	0	55	0	0	0	0	0	10	0	0	0	0	65
Santana Row Lots 9 & 17	0	27	0	0	0	0	0	9	0	0	0	0	36
Valley Fair Expansion	0	44	0	0	0	0	0	41	0	0	0	0	85
Winchester Reserve	0	22	0	0	0	0	0	41	0	0	0	0	63
North San Jose	0	-10	0	0	0	0	0	18	0	0	0	0	8
<u>Campbell ATI</u>	0	15	0	0	0	0	0	13	0	0	0	0	28
Total	0	153	0	0	0	0	0	132	0	0	0	0	285
<u>Reassignment of Existing Traffic due to Winchester Blvd Improvements</u>	0	49	-25	10	0	-10	19	20	0	0	0	0	63
Background Conditions	42	1331	0	27	0	0	53	1246	0	10	0	0	2709
Project Trips Under Background + Project	0	19	0	0	0	0	0	12	0	0	0	0	31
Background Plus Project Conditions	42	1350	0	27	0	0	53	1258	0	10	0	0	2740

Intersection Number: 6
 Traffix Node Number: 102
 Intersection Name: Winchester Boulevard and Hamilton Avenue
 Peak Hour: PM
 Count Date: 12/1/16

Scenario:	Movements												Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	154	632	448	476	928	366	271	515	140	137	934	176	5177
Project Trips Under Existing + Project	4	2	10	7	0	0	0	2	0	0	0	1	26
Existing Plus Project Conditions	158	634	458	483	928	366	271	517	140	137	934	177	5203
<u>San Jose ATI</u>													
Santana Row West	11	33	11	2	0	0	0	6	0	0	0	2	65
Santana Row Lot 11	6	6	6	4	0	0	0	4	0	0	0	4	30
Santana Row Lots 9 & 17	5	16	5	2	0	0	0	5	0	0	0	2	35
Valley Fair Expansion	15	15	15	14	0	0	0	14	0	0	0	14	87
Winchester Reserve	1	5	17	32	0	0	0	8	0	0	0	1	64
North San Jose	-1	-5	-4	4	9	3	3	7	2	3	25	7	53
<u>Campbell ATI</u>	0	7	8	7	13	38	10	6	3	3	15	0	110
Total	37	77	58	65	22	41	13	50	5	6	40	30	444
<u>Reassignment of Existing Traffic due to Winchester Blvd Improvements</u>	0	0	39	0	0	0	0	0	0	0	0	0	39
Background Conditions	191	709	545	541	950	407	284	565	145	143	974	206	5660
Project Trips Under Background + Project	4	2	13	7	0	0	0	2	0	0	0	1	29
Background Plus Project Conditions	195	711	558	548	950	407	284	567	145	143	974	207	5689

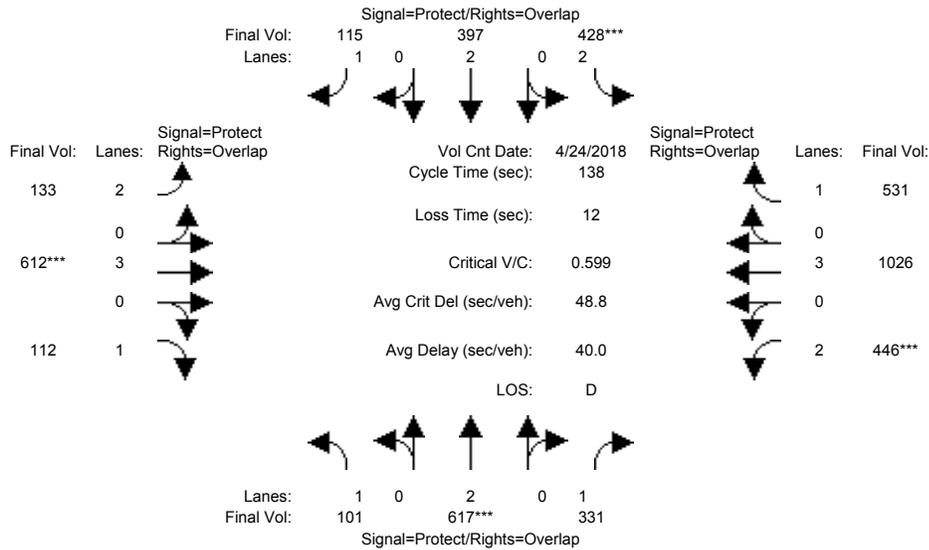
Appendix C

Level of Service Calculations

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #102: Winchester/Hamilton



Street Name:	Winchester						Hamilton					
	North Bound			South Bound			East Bound			West Bound		
Approach:	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:	24 Apr 2018	<<												
Base Vol:	101	617	331	428	397	115	133	612	112	446	1026	531					
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:	101	617	331	428	397	115	133	612	112	446	1026	531					
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:	101	617	331	428	397	115	133	612	112	446	1026	531					
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:	101	617	331	428	397	115	133	612	112	446	1026	531					
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0					
Reduced Vol:	101	617	331	428	397	115	133	612	112	446	1026	531					
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					
Final Volume:	101	617	331	428	397	115	133	612	112	446	1026	531					

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	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	5700	1750	3150	5700	1750

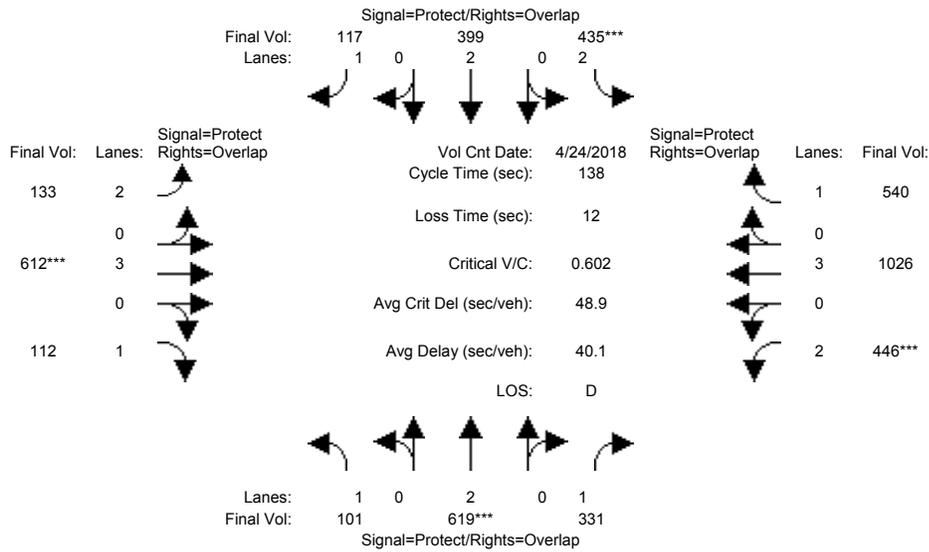
Capacity Analysis Module:												
Vol/Sat:	0.06	0.16	0.19	0.14	0.10	0.07	0.04	0.11	0.06	0.14	0.18	0.30
Crit Moves:	****			****			****			****		
Green Time:	24.4	37.4	70.0	31.3	44.2	56.8	12.6	24.7	49.2	32.6	44.7	76.0
Volume/Cap:	0.33	0.60	0.37	0.60	0.33	0.16	0.46	0.60	0.18	0.60	0.56	0.55
Delay/Veh:	50.2	44.8	20.9	49.2	35.7	25.6	60.7	53.1	30.7	48.2	38.8	20.7
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:	50.2	44.8	20.9	49.2	35.7	25.6	60.7	53.1	30.7	48.2	38.8	20.7
LOS by Move:	D	D	C	D	D	C	E	D	C	D	D	C
HCM2k95thQ:	8	21	17	19	12	6	7	16	7	18	21	27

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #102: Winchester/Hamilton



Street Name:	Winchester						Hamilton					
	North Bound			South Bound			East Bound			West Bound		
Approach:	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:	24 Apr 2018	<<							
Base Vol:	101	617	331	428	397	115	133	612	112	446	1026	531
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:	101	617	331	428	397	115	133	612	112	446	1026	531
Added Vol:	0	2	0	7	2	2	0	0	0	0	0	9
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	101	619	331	435	399	117	133	612	112	446	1026	540
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:	101	619	331	435	399	117	133	612	112	446	1026	540
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	619	331	435	399	117	133	612	112	446	1026	540
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
Final Volume:	101	619	331	435	399	117	133	612	112	446	1026	540

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	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	5700	1750	3150	5700	1750

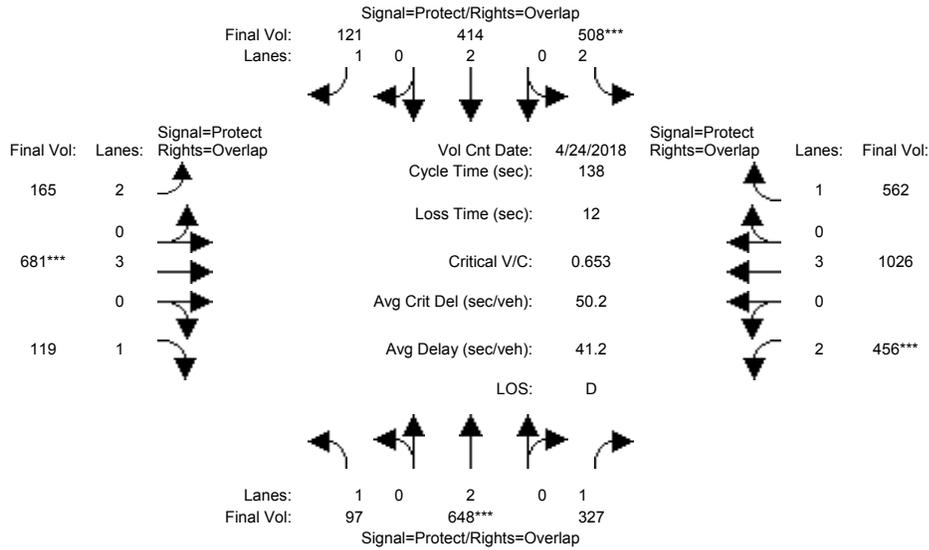
Capacity Analysis Module:												
Vol/Sat:	0.06	0.16	0.19	0.14	0.11	0.07	0.04	0.11	0.06	0.14	0.18	0.31
Crit Moves:	****			****			****			****		
Green Time:	24.5	37.3	69.8	31.6	44.5	57.0	12.5	24.6	49.1	32.4	44.5	76.1
Volume/Cap:	0.33	0.60	0.37	0.60	0.33	0.16	0.46	0.60	0.18	0.60	0.56	0.56
Delay/Veh:	50.2	44.9	21.1	49.0	35.5	25.6	60.7	53.2	30.8	48.4	39.0	20.8
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:	50.2	44.9	21.1	49.0	35.5	25.6	60.7	53.2	30.8	48.4	39.0	20.8
LOS by Move:	D	D	C	D	D	C	E	D	C	D	D	C
HCM2k95thQ:	8	21	17	19	12	7	7	16	7	18	21	28

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #102: Winchester/Hamilton



Street Name:	Winchester						Hamilton					
	North Bound			South Bound			East Bound			West Bound		
Approach:	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:	24 Apr 2018	<<							
Base Vol:	101	617	331	428	397	115	133	612	112	446	1026	531
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:	101	617	331	428	397	115	133	612	112	446	1026	531
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	-4	31	-4	80	17	6	32	69	7	10	0	31
Initial Fut:	97	648	327	508	414	121	165	681	119	456	1026	562
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:	97	648	327	508	414	121	165	681	119	456	1026	562
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	648	327	508	414	121	165	681	119	456	1026	562
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
Final Volume:	97	648	327	508	414	121	165	681	119	456	1026	562

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	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	5700	1750	3150	5700	1750

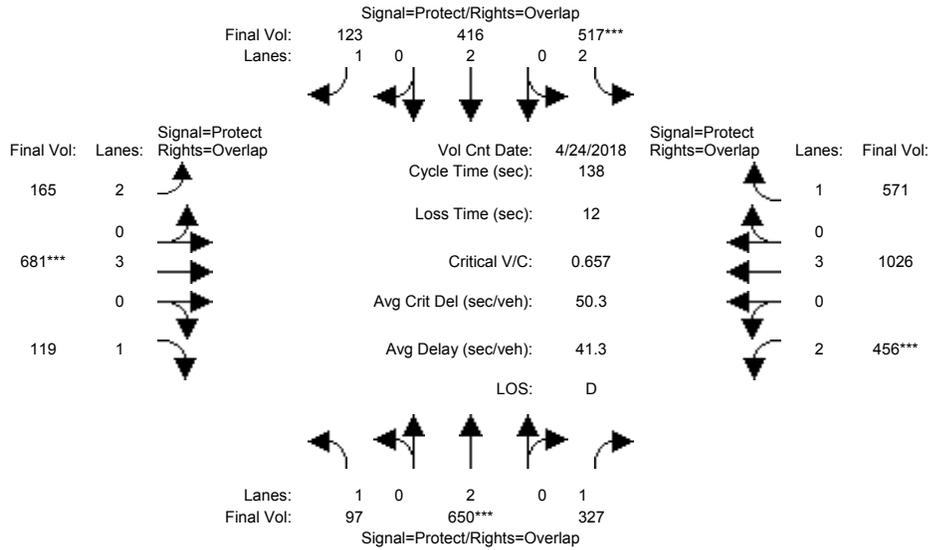
Capacity Analysis Module:												
Vol/Sat:	0.06	0.17	0.19	0.16	0.11	0.07	0.05	0.12	0.07	0.14	0.18	0.32
Crit Moves:	****			****			****			****		
Green Time:	23.7	36.0	66.7	34.1	46.5	59.1	12.6	25.3	48.9	30.6	43.3	77.4
Volume/Cap:	0.32	0.65	0.39	0.65	0.32	0.16	0.57	0.65	0.19	0.65	0.57	0.57
Delay/Veh:	50.8	47.0	23.0	48.6	34.2	24.3	62.9	53.8	31.0	51.1	40.1	20.5
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:	50.8	47.0	23.0	48.6	34.2	24.3	62.9	53.8	31.0	51.1	40.1	20.5
LOS by Move:	D	D	C	D	C	C	E	D	C	D	D	C
HCM2k95thQ:	8	23	17	22	12	7	10	18	7	19	21	28

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #102: Winchester/Hamilton



Street Name:	Winchester						Hamilton					
	North Bound			South Bound			East Bound			West Bound		
Approach:	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:	24 Apr 2018	<<							
Base Vol:	97	648	327	508	414	121	165	681	119	456	1026	562
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:	97	648	327	508	414	121	165	681	119	456	1026	562
Added Vol:	0	2	0	9	2	2	0	0	0	0	0	9
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	97	650	327	517	416	123	165	681	119	456	1026	571
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:	97	650	327	517	416	123	165	681	119	456	1026	571
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	650	327	517	416	123	165	681	119	456	1026	571
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
Final Volume:	97	650	327	517	416	123	165	681	119	456	1026	571

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	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	5700	1750	3150	5700	1750

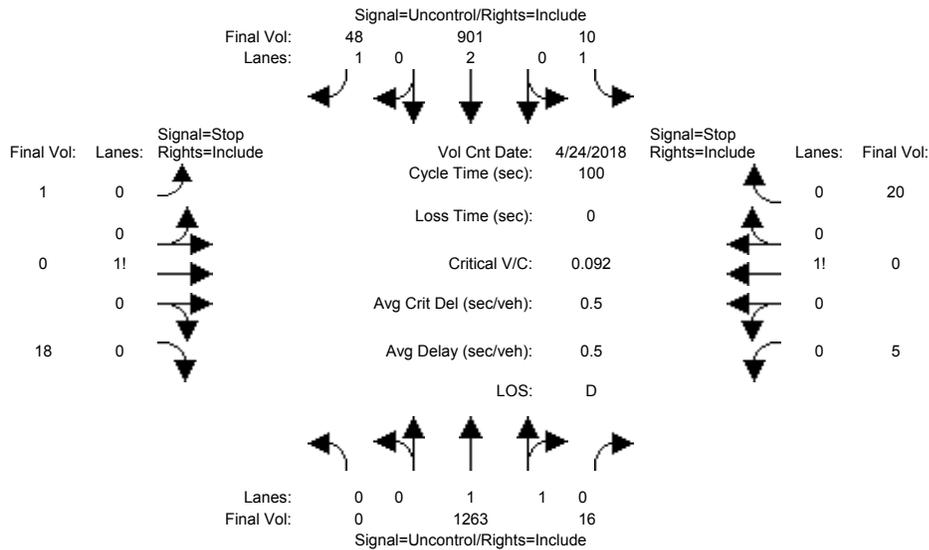
Capacity Analysis Module:												
Vol/Sat:	0.06	0.17	0.19	0.16	0.11	0.07	0.05	0.12	0.07	0.14	0.18	0.33
Crit Moves:	****			****			****			****		
Green Time:	23.7	36.0	66.4	34.5	46.8	59.3	12.5	25.1	48.8	30.4	43.0	77.5
Volume/Cap:	0.32	0.66	0.39	0.66	0.32	0.16	0.58	0.66	0.19	0.66	0.58	0.58
Delay/Veh:	50.8	47.1	23.2	48.5	34.0	24.2	63.1	54.0	31.1	51.3	40.3	20.6
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:	50.8	47.1	23.2	48.5	34.0	24.2	63.1	54.0	31.1	51.3	40.3	20.6
LOS by Move:	D	D	C	D	C	C	E	D	C	D	D	C
HCM2k95thQ:	8	23	17	22	12	7	10	18	7	19	21	29

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #204: WINCHESTER/ROSEMARY



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:	>> Count Date: 24 Apr 2018 <<											
Base Vol:	0	1263	16	10	901	48	1	0	18	5	0	20
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	1263	16	10	901	48	1	0	18	5	0	20
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	1263	16	10	901	48	1	0	18	5	0	20
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	1263	16	10	901	48	1	0	18	5	0	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	1263	16	10	901	48	1	0	18	5	0	20

Critical Gap Module:												
Critical Gp:	xxxx	xxxx	xxxx	4.1	xxxx	xxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	xxxx	xxxx	xxxx	2.2	xxxx	xxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:												
Cnflct Vol:	xxxx	xxxx	xxxx	1279	xxxx	xxxx	1553	2200	451	1742	2240	640
Potent Cap.:	xxxx	xxxx	xxxx	550	xxxx	xxxx	78	45	562	57	43	423
Move Cap.:	xxxx	xxxx	xxxx	550	xxxx	xxxx	74	45	562	54	42	423
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	0.01	0.00	0.03	0.09	0.00	0.05

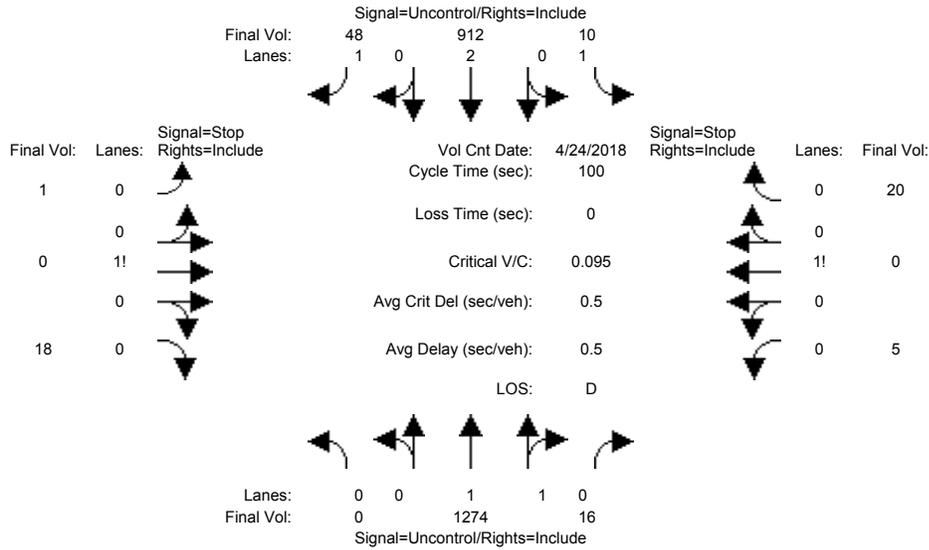
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxx	0.1	xxxx	xxxx						
Control Del:	xxxx	xxxx	xxxx	11.7	xxxx	xxxx						
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	417	xxxx	xxxx	179	xxxx						
Shared Queue:	xxxx	0.1	xxxx	xxxx	0.5	xxxx						
Shrd ConDel:	xxxx	14.1	xxxx	xxxx	28.3	xxxx						
Shared LOS:	*	*	*	*	*	*	*	B	*	*	D	*
ApproachDel:	xxxxxx	xxxxxx					14.1			28.3		
ApproachLOS:	*	*					B			D		

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

Level of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+Project (AM)

Intersection #204: WINCHESTER/ROSEMARY



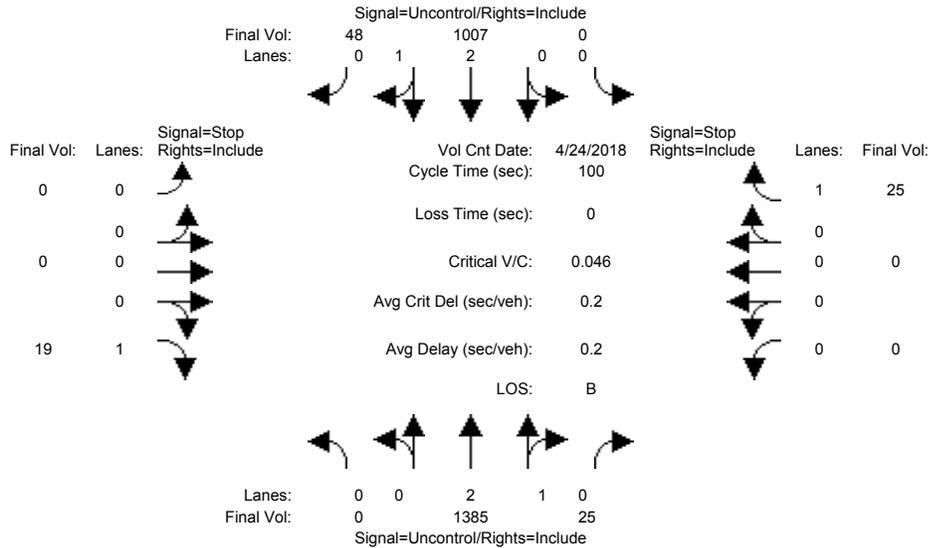
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Volume Module: >> Count Date: 24 Apr 2018 <<												
Base Vol:	0	1263	16	10	901	48	1	0	18	5	0	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1263	16	10	901	48	1	0	18	5	0	20
Added Vol:	0	11	0	0	11	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1274	16	10	912	48	1	0	18	5	0	20
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	1274	16	10	912	48	1	0	18	5	0	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1274	16	10	912	48	1	0	18	5	0	20
Critical Gap Module:												
Critical Gp:	xxxx	xxxx	xxxx	4.1	xxxx	xxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	xxxx	xxxx	xxxx	2.2	xxxx	xxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflct Vol:	xxxx	xxxx	xxxx	1290	xxxx	xxxx	1569	2222	456	1758	2262	645
Potent Cap.:	xxxx	xxxx	xxxx	544	xxxx	xxxx	76	44	557	55	41	420
Move Cap.:	xxxx	xxxx	xxxx	544	xxxx	xxxx	72	43	557	53	41	420
Volume/Cap:	xxxx	xxxx	xxxx	0.02	xxxx	xxxx	0.01	0.00	0.03	0.10	0.00	0.05
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxx	0.1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	xxxx	xxxx	xxxx	11.7	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	*	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	411	xxxx	xxxx	175	xxxx
SharedQueue:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	xxxx	xxxx	0.5	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	14.2	xxxx	xxxx	29.0	xxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	D	*
ApproachDel:	xxxxxx			xxxxxx				14.2			29.0	
ApproachLOS:	*			*				B			D	

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #204: WINCHESTER/ROSEMARY



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:	>> Count Date: 24 Apr 2018 <<											
Base Vol:	0	1263	16	10	901	48	1	0	18	5	0	20
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	1263	16	10	901	48	1	0	18	5	0	20
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	122	9	-10	106	0	-1	0	1	-5	0	5
Initial Fut:	0	1385	25	0	1007	48	0	0	19	0	0	25
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	1385	25	0	1007	48	0	0	19	0	0	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	1385	25	0	1007	48	0	0	19	0	0	25

Critical Gap Module:												
Critical Gp:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:												
Cnflct Vol:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	1493	2441	360	1733	2453	474
Potent Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	87	32	643	58	31	542
Move Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	83	32	643	56	31	542
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.03	0.00	0.00	0.05

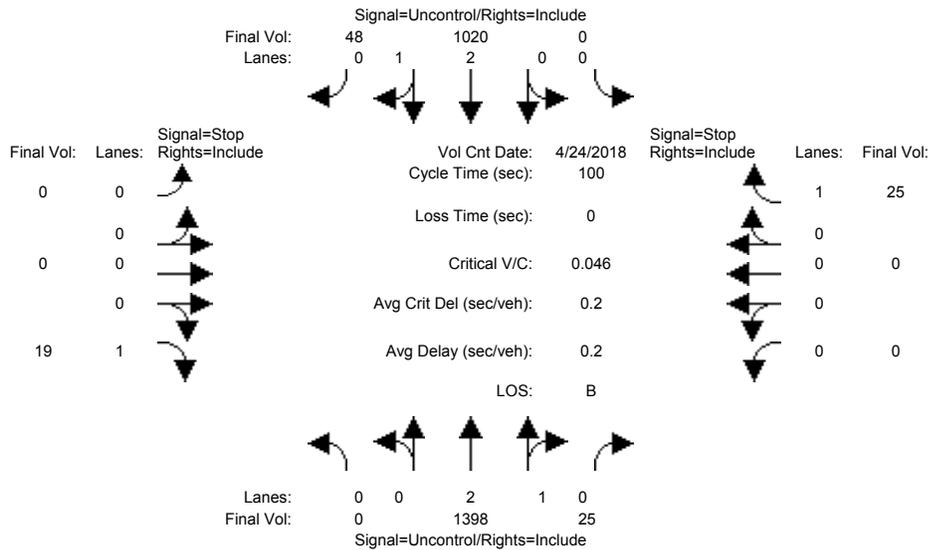
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	643	xxxx	xxxx	542	xxxx
Shared Queue:	xxxx	xxxx	xxxx	0.0	xxxx	xxxx	xxxx	0.1	xxxx	xxxx	0.1	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	7.2	xxxx	xxxx	xxxx	10.8	xxxx	xxxx	12.0	xxxx
Shared LOS:	*	*	*	A	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx				10.8			12.0	
ApproachLOS:	*			*				B			B	

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Background+Project (AM)

Intersection #204: WINCHESTER/ROSEMARY



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Volume Module:	>> Count Date: 24 Apr 2018 <<											
Base Vol:	0	1385	25	0	1007	48	0	0	19	0	0	25
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	1385	25	0	1007	48	0	0	19	0	0	25
Added Vol:	0	13	0	0	13	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1398	25	0	1020	48	0	0	19	0	0	25
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	1398	25	0	1020	48	0	0	19	0	0	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1398	25	0	1020	48	0	0	19	0	0	25

Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.9	xxxxx	xxxx	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.3	xxxxx	xxxx	3.3

Capacity Module:												
Cnflct Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	364	xxxx	xxxx	479
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	639	xxxx	xxxx	539
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	639	xxxx	xxxx	539
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx	0.05

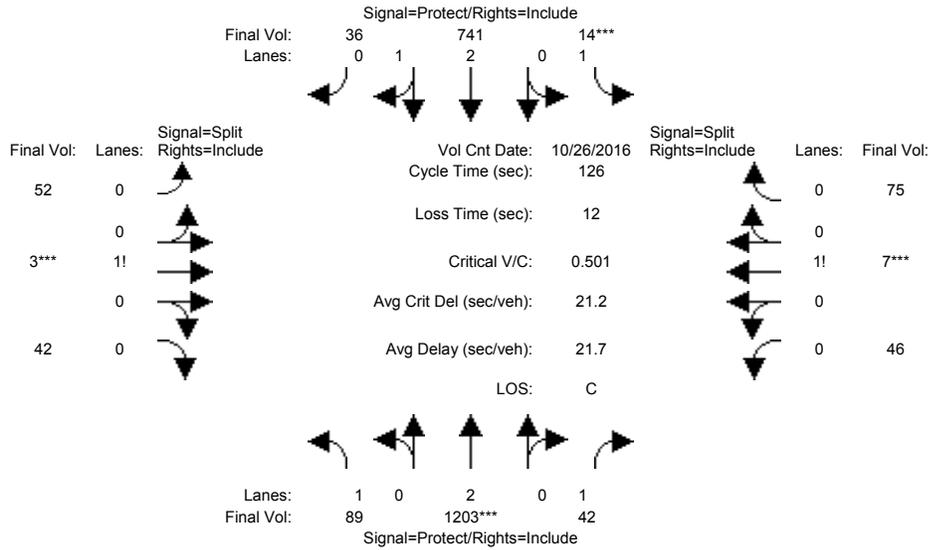
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.1	xxxx	xxxx	0.1
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.8	xxxxx	xxxx	12.0
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx					10.8			12.0
ApproachLOS:	*			*					B			B

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #3882: DAVID/WINCHESTER



Approach:	North Bound			South Bound			East Bound			West Bound		
	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: 26 Oct 2016 << 7:45-8:45											
Base Vol:	89	1203	42	14	741	36	52	3	42	46	7	75
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:	89	1203	42	14	741	36	52	3	42	46	7	75
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:	89	1203	42	14	741	36	52	3	42	46	7	75
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:	89	1203	42	14	741	36	52	3	42	46	7	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	1203	42	14	741	36	52	3	42	46	7	75
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
Final Volume:	89	1203	42	14	741	36	52	3	42	46	7	75

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	1.00	1.00	2.86	0.14	0.54	0.03	0.43	0.36	0.05	0.59
Final Sat.:	1750	3800	1750	1750	5340	259	938	54	758	629	96	1025

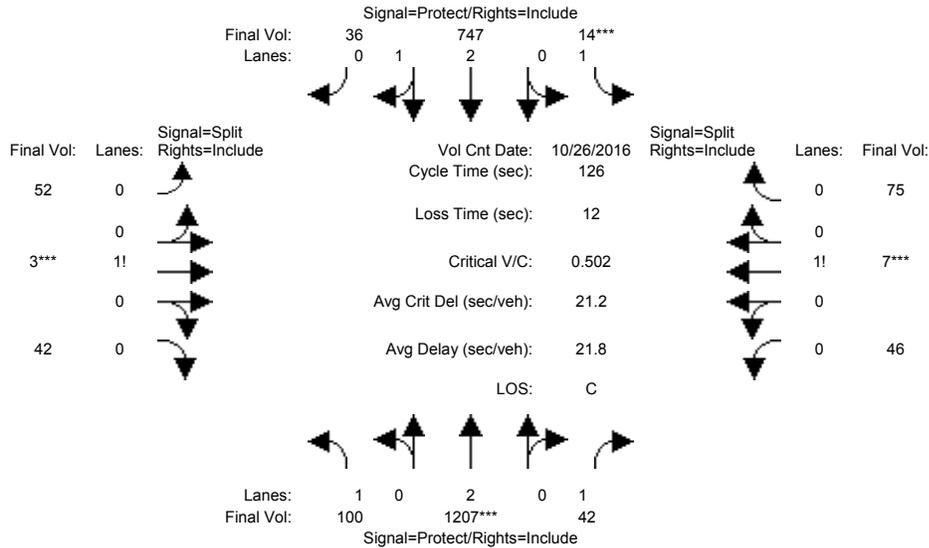
Capacity Analysis Module:												
Vol/Sat:	0.05	0.32	0.02	0.01	0.14	0.14	0.06	0.06	0.06	0.07	0.07	0.07
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	23.8	76.1	76.1	7.0	59.3	59.3	13.3	13.3	13.3	17.6	17.6	17.6
Volume/Cap:	0.27	0.52	0.04	0.14	0.29	0.29	0.52	0.52	0.52	0.52	0.52	0.52
Delay/Veh:	44.1	14.7	10.1	57.3	20.5	20.5	56.1	56.1	56.1	52.4	52.4	52.4
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:	44.1	14.7	10.1	57.3	20.5	20.5	56.1	56.1	56.1	52.4	52.4	52.4
LOS by Move:	D	B	B	E	C	C	E	E	E	D	D	D
HCM2k95thQ:	7	24	1	1	12	12	9	9	9	11	11	11

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #3882: DAVID/WINCHESTER



Approach:	North Bound			South Bound			East Bound			West Bound		
	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:	26 Oct 2016	<<	7:45-8:45						
Base Vol:	89	1203	42	14	741	36	52	3	42	46	7	75
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:	89	1203	42	14	741	36	52	3	42	46	7	75
Added Vol:	11	4	0	0	6	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	100	1207	42	14	747	36	52	3	42	46	7	75
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:	100	1207	42	14	747	36	52	3	42	46	7	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	1207	42	14	747	36	52	3	42	46	7	75
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
Final Volume:	100	1207	42	14	747	36	52	3	42	46	7	75

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	1.00	1.00	2.86	0.14	0.54	0.03	0.43	0.36	0.05	0.59
Final Sat.:	1750	3800	1750	1750	5342	257	938	54	758	629	96	1025

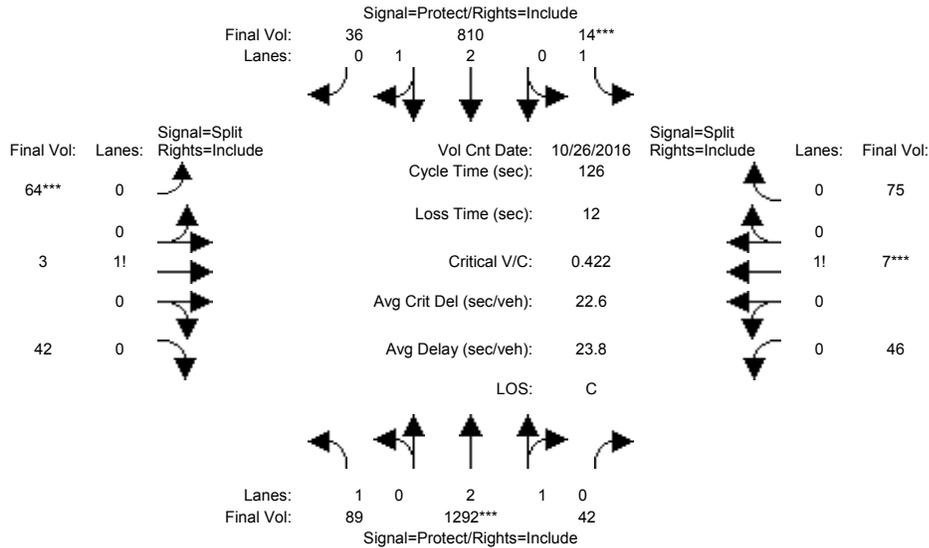
Capacity Analysis Module:												
Vol/Sat:	0.06	0.32	0.02	0.01	0.14	0.14	0.06	0.06	0.06	0.07	0.07	0.07
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	24.1	76.2	76.2	7.0	59.0	59.0	13.3	13.3	13.3	17.5	17.5	17.5
Volume/Cap:	0.30	0.53	0.04	0.14	0.30	0.30	0.53	0.53	0.53	0.53	0.53	0.53
Delay/Veh:	44.2	14.7	10.1	57.3	20.7	20.7	56.1	56.1	56.1	52.5	52.5	52.5
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:	44.2	14.7	10.1	57.3	20.7	20.7	56.1	56.1	56.1	52.5	52.5	52.5
LOS by Move:	D	B	B	E	C	C	E	E	E	D	D	D
HCM2k95thQ:	7	24	1	1	12	12	9	9	9	11	11	11

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #3882: DAVID/WINCHESTER



Approach:	North Bound			South Bound			East Bound			West Bound		
	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:	26 Oct 2016	<<	7:45-8:45
Base Vol:	89	1203	42	14	741	36
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	1203	42	14	741	36
Added Vol:	0	0	0	0	0	0
ATI:	0	89	0	0	69	0
Initial Fut:	89	1292	42	14	810	36
User Adj:	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
PHF Volume:	89	1292	42	14	810	36
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	89	1292	42	14	810	36
PCE Adj:	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
Final Volume:	89	1292	42	14	810	36

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	
Lanes:	1.00	2.90	0.10	1.00	2.87	0.13	0.59	0.03	0.38	0.36	0.05	
Final Sat.:	1750	5423	176	1750	5361	238	1028	48	674	629	96	

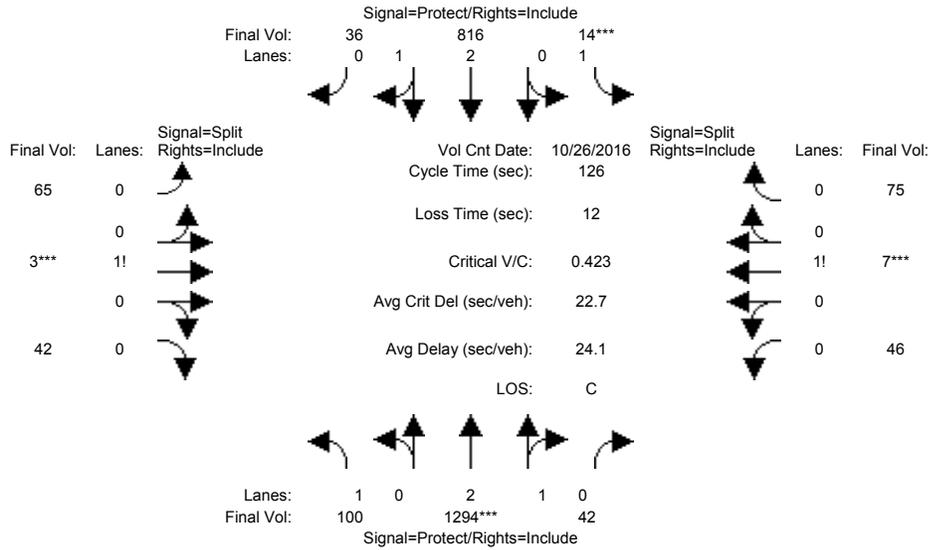
Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.05	0.24	0.24	0.01	0.15	0.15	0.06	0.06	0.06	0.07	0.07	
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	
Green Time:	20.2	68.2	68.2	7.0	55.0	55.0	17.8	17.8	17.8	20.9	20.9	
Volume/Cap:	0.32	0.44	0.44	0.14	0.35	0.35	0.44	0.44	0.44	0.44	0.44	
Delay/Veh:	47.4	17.5	17.5	57.3	23.7	23.7	50.8	50.8	50.8	48.3	48.3	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	47.4	17.5	17.5	57.3	23.7	23.7	50.8	50.8	50.8	48.3	48.3	
LOS by Move:	D	B	B	E	C	C	D	D	D	D	D	
HCM2k95thQ:	7	19	19	1	13	13	9	9	9	10	10	

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #3882: DAVID/WINCHESTER



Approach:	North Bound			South Bound			East Bound			West Bound		
	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:	26 Oct 2016	<<	7:45-8:45						
Base Vol:	89	1292	42	14	810	36	64	3	42	46	7	75
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:	89	1292	42	14	810	36	64	3	42	46	7	75
Added Vol:	11	2	0	0	6	0	1	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	100	1294	42	14	816	36	65	3	42	46	7	75
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:	100	1294	42	14	816	36	65	3	42	46	7	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	100	1294	42	14	816	36	65	3	42	46	7	75
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
Final Volume:	100	1294	42	14	816	36	65	3	42	46	7	75

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.98	0.95	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.90	0.10	1.00	2.87	0.13	0.59	0.03	0.38	0.36	0.05	0.59
Final Sat.:	1750	5424	176	1750	5363	237	1034	48	668	629	96	1025

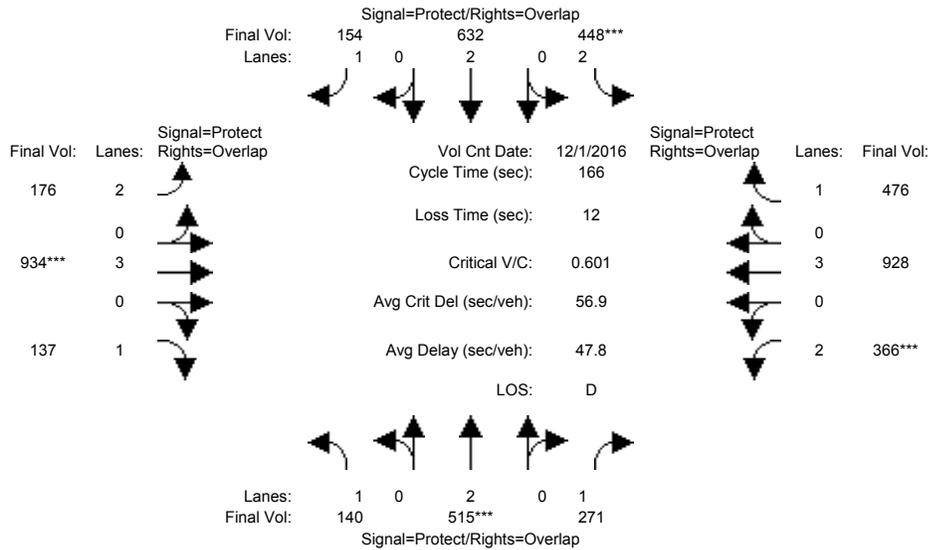
Capacity Analysis Module:	Vol/Sat:	0.06	0.24	0.24	0.01	0.15	0.15	0.06	0.06	0.06	0.07	0.07	0.07
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	20.5	68.2	68.2	7.0	54.6	54.6	18.0	18.0	18.0	20.9	20.9	20.9	
Volume/Cap:	0.35	0.44	0.44	0.14	0.35	0.35	0.44	0.44	0.44	0.44	0.44	0.44	
Delay/Veh:	47.6	17.5	17.5	57.3	23.9	23.9	50.7	50.7	50.7	48.4	48.4	48.4	
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:	47.6	17.5	17.5	57.3	23.9	23.9	50.7	50.7	50.7	48.4	48.4	48.4	
LOS by Move:	D	B	B	E	C	C	D	D	D	D	D	D	
HCM2k95thQ:	8	19	19	1	14	14	9	9	9	10	10	10	

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #102: Winchester/Hamilton



Street Name:	Winchester						Hamilton					
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:	1 Dec 2016	<<	4:30 PM to 5:30 PM												
Base Vol:	140	515	271	448	632	154	176	934	137	366	928	476						
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:	140	515	271	448	632	154	176	934	137	366	928	476						
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:	140	515	271	448	632	154	176	934	137	366	928	476						
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:	140	515	271	448	632	154	176	934	137	366	928	476						
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0						
Reduced Vol:	140	515	271	448	632	154	176	934	137	366	928	476						
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						
Final Volume:	140	515	271	448	632	154	176	934	137	366	928	476						

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	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	5700	1750	3150	5700	1750

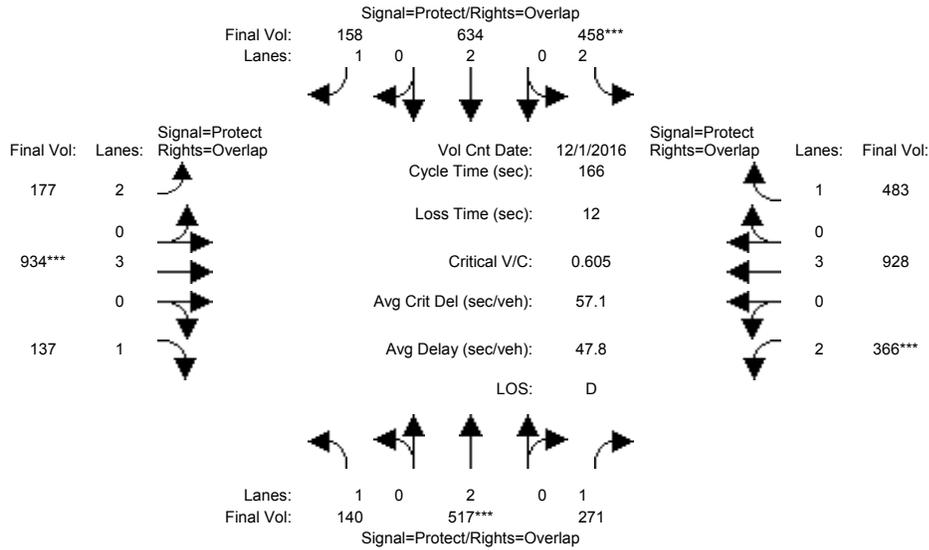
Capacity Analysis Module:												
Vol/Sat:	0.08	0.14	0.15	0.14	0.17	0.09	0.06	0.16	0.08	0.12	0.16	0.27
Crit Moves:	****			****			****			****		
Green Time:	24.9	37.4	69.5	39.3	51.8	71.5	19.8	45.2	70.1	32.1	57.6	96.8
Volume/Cap:	0.53	0.60	0.37	0.60	0.53	0.20	0.47	0.60	0.19	0.60	0.47	0.47
Delay/Veh:	67.3	58.8	33.5	57.8	47.6	29.6	69.2	53.2	30.1	62.8	42.5	20.1
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:	67.3	58.8	33.5	57.8	47.6	29.6	69.2	53.2	30.1	62.8	42.5	20.1
LOS by Move:	E	E	C	E	D	C	E	D	C	E	D	C
HCM2k95thQ:	14	22	18	23	23	10	11	25	9	18	21	25

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #102: Winchester/Hamilton



Street Name:	Winchester						Hamilton					
	North Bound			South Bound			East Bound			West Bound		
Approach:	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:	1 Dec 2016	<<	4:30 PM to 5:30 PM						
Base Vol:	140	515	271	448	632	154	176	934	137	366	928	476
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:	140	515	271	448	632	154	176	934	137	366	928	476
Added Vol:	0	2	0	10	2	4	1	0	0	0	0	7
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	140	517	271	458	634	158	177	934	137	366	928	483
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:	140	517	271	458	634	158	177	934	137	366	928	483
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	517	271	458	634	158	177	934	137	366	928	483
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
Final Volume:	140	517	271	458	634	158	177	934	137	366	928	483

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	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	5700	1750	3150	5700	1750

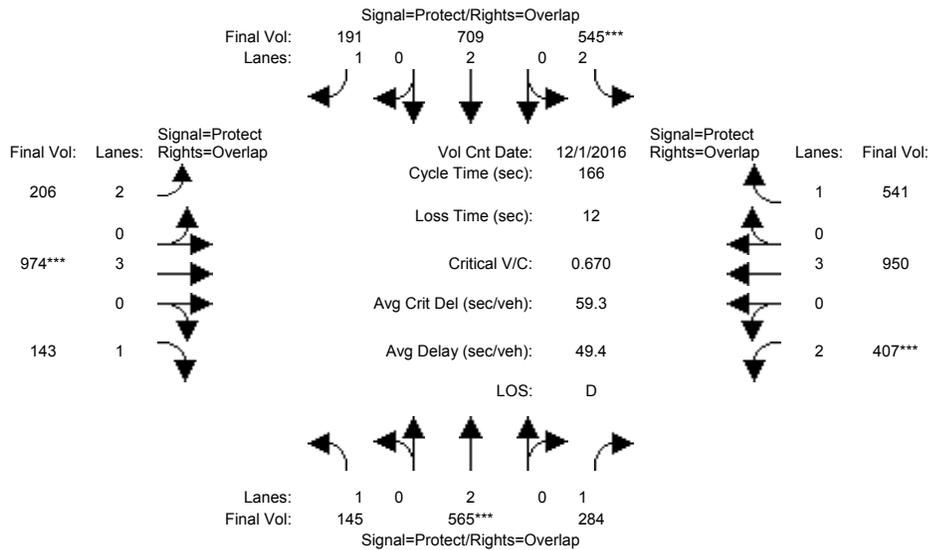
Capacity Analysis Module:												
Vol/Sat:	0.08	0.14	0.15	0.15	0.17	0.09	0.06	0.16	0.08	0.12	0.16	0.28
Crit Moves:	****			****			****			****		
Green Time:	25.0	37.3	69.2	39.9	52.2	71.9	19.7	44.9	70.0	31.9	57.1	97.0
Volume/Cap:	0.53	0.61	0.37	0.61	0.53	0.21	0.47	0.61	0.19	0.61	0.47	0.47
Delay/Veh:	67.1	59.0	33.7	57.5	47.3	29.5	69.2	53.5	30.3	63.1	42.8	20.2
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:	67.1	59.0	33.7	57.5	47.3	29.5	69.2	53.5	30.3	63.1	42.8	20.2
LOS by Move:	E	E	C	E	D	C	E	D	C	E	D	C
HCM2k95thQ:	14	22	18	23	23	10	11	25	9	18	21	25

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #102: Winchester/Hamilton



Street Name:	Winchester						Hamilton					
	North Bound			South Bound			East Bound			West Bound		
Approach:	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:	1 Dec 2016	<<	4:30 PM	to	5:30 PM				
Base Vol:	140	515	271	448	632	154	176	934	137	366	928	476
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:	140	515	271	448	632	154	176	934	137	366	928	476
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	5	50	13	97	77	37	30	40	6	41	22	65
Initial Fut:	145	565	284	545	709	191	206	974	143	407	950	541
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:	145	565	284	545	709	191	206	974	143	407	950	541
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	565	284	545	709	191	206	974	143	407	950	541
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
Final Volume:	145	565	284	545	709	191	206	974	143	407	950	541

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	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	5700	1750	3150	5700	1750

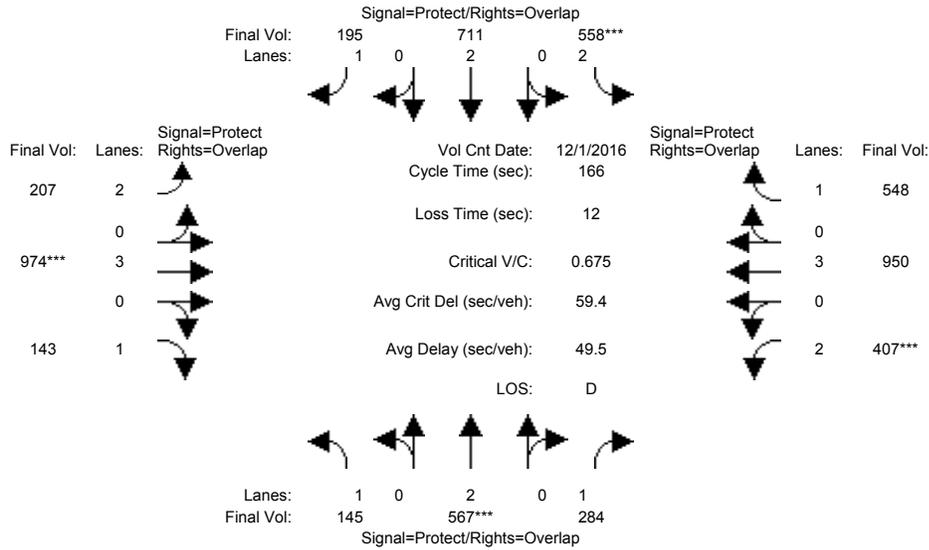
Capacity Analysis Module:												
Vol/Sat:	0.08	0.15	0.16	0.17	0.19	0.11	0.07	0.17	0.08	0.13	0.17	0.31
Crit Moves:	****			****			****			****		
Green Time:	24.5	36.8	68.8	42.9	55.2	76.1	20.9	42.3	66.8	32.0	53.4	96.2
Volume/Cap:	0.56	0.67	0.39	0.67	0.56	0.24	0.52	0.67	0.20	0.67	0.52	0.53
Delay/Veh:	68.6	61.1	34.3	57.4	46.1	27.5	69.0	56.8	32.4	65.0	46.1	21.8
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:	68.6	61.1	34.3	57.4	46.1	27.5	69.0	56.8	32.4	65.0	46.1	21.8
LOS by Move:	E	E	C	E	D	C	E	E	C	E	D	C
HCM2k95thQ:	15	24	19	27	26	12	12	27	10	20	22	29

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #102: Winchester/Hamilton



Street Name:	Winchester						Hamilton					
	North Bound			South Bound			East Bound			West Bound		
Approach:	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:	1 Dec 2016	<<	4:30 PM	to	5:30 PM				
Base Vol:	145	565	284	545	709	191	206	974	143	407	950	541
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:	145	565	284	545	709	191	206	974	143	407	950	541
Added Vol:	0	2	0	13	2	4	1	0	0	0	0	7
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	145	567	284	558	711	195	207	974	143	407	950	548
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:	145	567	284	558	711	195	207	974	143	407	950	548
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	145	567	284	558	711	195	207	974	143	407	950	548
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
Final Volume:	145	567	284	558	711	195	207	974	143	407	950	548

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	0.83	1.00	0.92	0.83	1.00	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	5700	1750	3150	5700	1750

Capacity Analysis Module:												
Vol/Sat:	0.08	0.15	0.16	0.18	0.19	0.11	0.07	0.17	0.08	0.13	0.17	0.31
Crit Moves:	****			****			****			****		
Green Time:	24.6	36.7	68.4	43.5	55.6	76.5	20.9	42.0	66.6	31.8	52.9	96.5
Volume/Cap:	0.56	0.68	0.39	0.68	0.56	0.24	0.52	0.68	0.20	0.68	0.52	0.54
Delay/Veh:	68.4	61.4	34.6	57.1	45.7	27.3	69.2	57.1	32.5	65.4	46.5	21.8
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:	68.4	61.4	34.6	57.1	45.7	27.3	69.2	57.1	32.5	65.4	46.5	21.8
LOS by Move:	E	E	C	E	D	C	E	E	C	E	D	C
HCM2k95thQ:	15	25	19	28	26	12	12	27	10	20	22	30

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #204: WINCHESTER/ROSEMARY

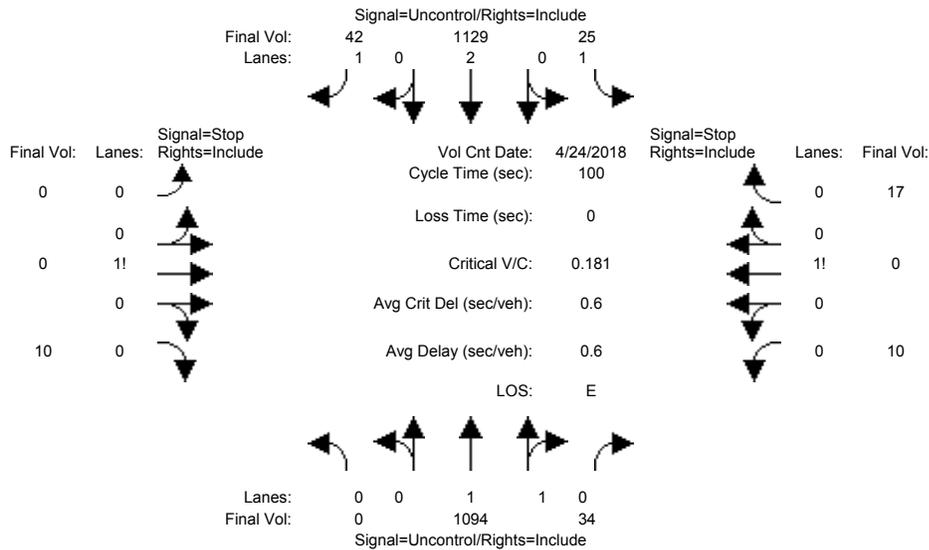
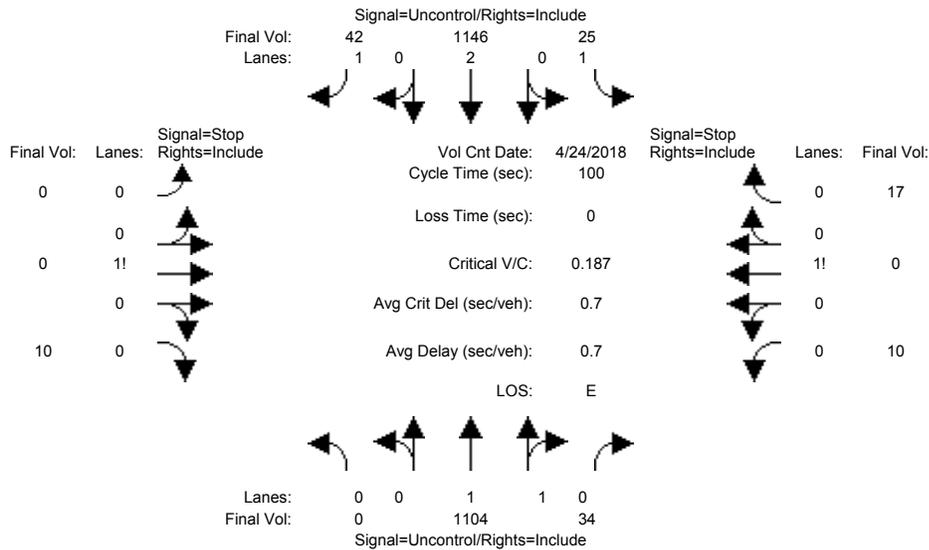


Table with columns for Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Volume Module, Critical Gap Module, Capacity Module, and Level Of Service Module, providing detailed traffic analysis data.

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

Level Of Service Computation Report
2000 HCM Unsignalized (Future Volume Alternative)
Existing+Project (PM)

Intersection #204: WINCHESTER/ROSEMARY



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:	>> Count Date: 24 Apr 2018 <<											
Base Vol:	0	1094	34	25	1129	42	0	0	10	10	0	17
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	1094	34	25	1129	42	0	0	10	10	0	17
Added Vol:	0	10	0	0	17	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1104	34	25	1146	42	0	0	10	10	0	17
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	1104	34	25	1146	42	0	0	10	10	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	1104	34	25	1146	42	0	0	10	10	0	17

Critical Gap Module:												
Critical Gp:	xxxx	xxxx	xxxx	4.1	xxxx	xxxx	xxxx	xxxx	6.9	7.5	6.5	6.9
FollowUpTim:	xxxx	xxxx	xxxx	2.2	xxxx	xxxx	xxxx	xxxx	3.3	3.5	4.0	3.3

Capacity Module:												
Cnflct Vol:	xxxx	xxxx	xxxx	1138	xxxx	xxxx	xxxx	xxxx	573	1744	2359	569
Potent Cap.:	xxxx	xxxx	xxxx	621	xxxx	xxxx	xxxx	xxxx	468	56	36	470
Move Cap.:	xxxx	xxxx	xxxx	621	xxxx	xxxx	xxxx	xxxx	468	54	35	470
Volume/Cap:	xxxx	xxxx	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	0.02	0.19	0.00	0.04

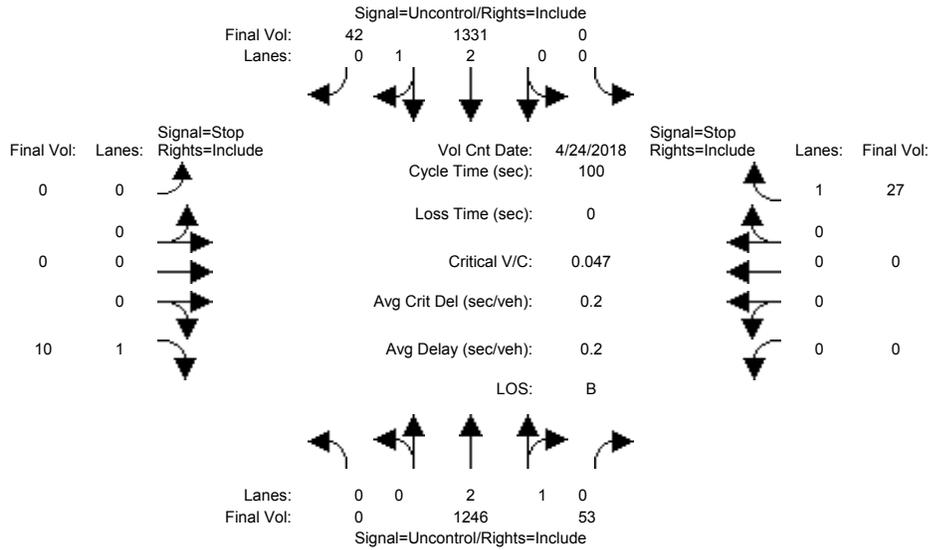
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxx	0.1	xxxx	xxxx	xxxx	xxxx	0.1	xxxx	xxxx	xxxx
Control Del:	xxxx	xxxx	xxxx	11.0	xxxx	xxxx	xxxx	xxxx	12.9	xxxx	xxxx	xxxx
LOS by Move:	*	*	*	B	*	*	*	*	B	*	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	121	xxxx									
Shared Queue:	xxxx	0.8	xxxx									
Shrd ConDel:	xxxx	43.0	xxxx									
Shared LOS:	*	*	*	*	*	*	*	*	*	*	E	*
ApproachDel:	xxxxxx	xxxxxx						12.9		43.0		
ApproachLOS:	*	*						B		E		

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #204: WINCHESTER/ROSEMARY



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Volume Module:	>> Count Date: 24 Apr 2018 <<											
Base Vol:	0	1094	34	25	1129	42	0	0	10	10	0	17
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	1094	34	25	1129	42	0	0	10	10	0	17
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
ATI:	0	152	19	-25	202	0	0	0	0	-10	0	10
Initial Fut:	0	1246	53	0	1331	42	0	0	10	0	0	27
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	1246	53	0	1331	42	0	0	10	0	0	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	1246	53	0	1331	42	0	0	10	0	0	27

Critical Gap Module:

Critical Gp:	xxxx	6.9	7.5	6.5	6.9							
FollowUpTim:	xxxx	3.3	3.5	4.0	3.3							

Capacity Module:

Cnflct Vol:	xxxx	465	1716	2646	442							
Potent Cap.:	xxxx	550	59	24	569							
Move Cap.:	xxxx	550	58	24	569							
Volume/Cap:	xxxx	0.02	0.00	0.00	0.05							

Level Of Service Module:

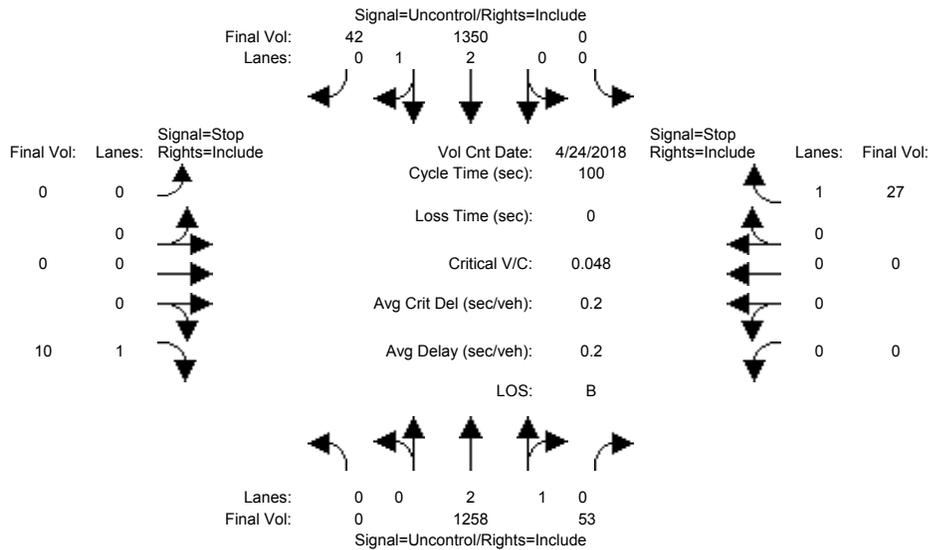
2Way95thQ:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	xxxx	xxxx	xxxx
Control Del:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	11.7	xxxx	xxxx	xxxx
LOS by Move:	*	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	569	xxxx
SharedQueue:	xxxx	xxxx	xxxx	0.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.1	xxxx
Shrd ConDel:	xxxx	xxxx	xxxx	7.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	11.6	xxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx					11.7		11.6	
ApproachLOS:	*			*					B		B	

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #204: WINCHESTER/ROSEMARY



Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Table with columns for Volume Module and rows for various traffic metrics like Base Vol, Growth Adj, Initial Bse, etc., across four approaches.

Table for Critical Gap Module showing Critical Gp, FollowUpTim, and other timing parameters.

Table for Capacity Module showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. ratios.

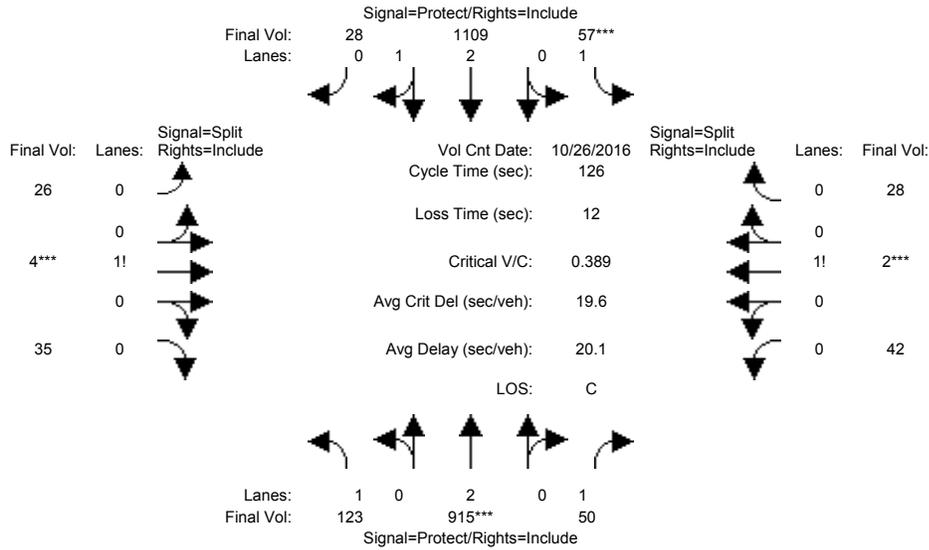
Table for Level Of Service Module showing 2Way95thQ, Control Del, LOS by Move, and Shared Queue metrics.

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #3882: DAVID/WINCHESTER



Approach:	North Bound			South Bound			East Bound			West Bound		
	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: 26 Oct 2016 << 5:00-6:00											
Base Vol:	123	915	50	57	1109	28	26	4	35	42	2	28
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:	123	915	50	57	1109	28	26	4	35	42	2	28
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:	123	915	50	57	1109	28	26	4	35	42	2	28
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:	123	915	50	57	1109	28	26	4	35	42	2	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	915	50	57	1109	28	26	4	35	42	2	28
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
Final Volume:	123	915	50	57	1109	28	26	4	35	42	2	28

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	1.00	1.00	2.92	0.08	0.40	0.06	0.54	0.58	0.03	0.39
Final Sat.:	1750	3800	1750	1750	5462	138	700	108	942	1021	49	681

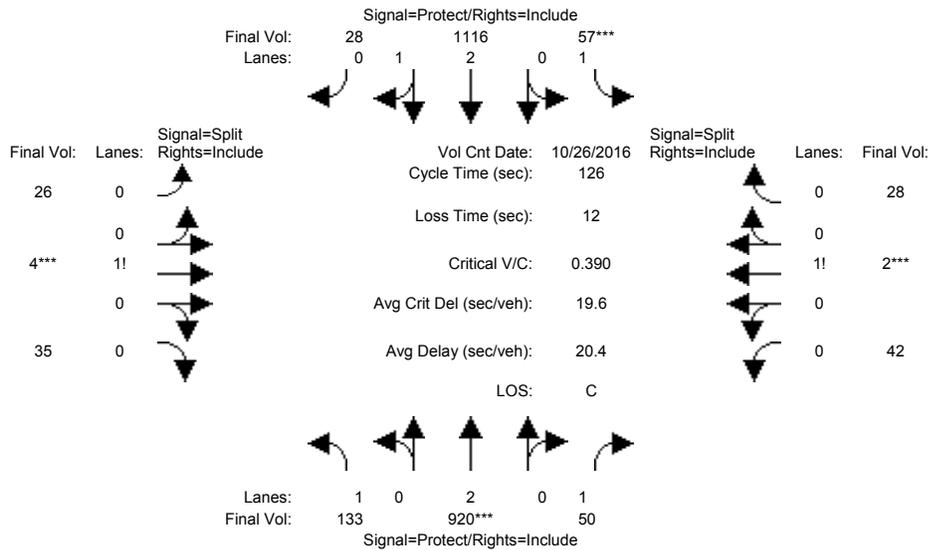
Capacity Analysis Module:												
Vol/Sat:	0.07	0.24	0.03	0.03	0.20	0.20	0.04	0.04	0.04	0.04	0.04	0.04
Crit Moves:	****			****			****			****		
Green Time:	22.8	78.1	78.1	10.6	65.8	65.8	12.0	12.0	12.0	13.3	13.3	13.3
Volume/Cap:	0.39	0.39	0.05	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Delay/Veh:	46.3	12.1	9.4	56.4	18.1	18.1	55.0	55.0	55.0	53.9	53.9	53.9
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:	46.3	12.1	9.4	56.4	18.1	18.1	55.0	55.0	55.0	53.9	53.9	53.9
LOS by Move:	D	B	A	E	B	B	E	E	E	D	D	D
HCM2k95thQ:	9	16	2	4	16	16	6	6	6	6	6	6

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #3882: DAVID/WINCHESTER



Approach:	North Bound			South Bound			East Bound			West Bound		
	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: 26 Oct 2016 << 5:00-6:00											
Base Vol:	123	915	50	57	1109	28	26	4	35	42	2	28
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:	123	915	50	57	1109	28	26	4	35	42	2	28
Added Vol:	10	5	0	0	7	0	0	0	0	0	0	0
ATI:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	133	920	50	57	1116	28	26	4	35	42	2	28
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:	133	920	50	57	1116	28	26	4	35	42	2	28
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	920	50	57	1116	28	26	4	35	42	2	28
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
Final Volume:	133	920	50	57	1116	28	26	4	35	42	2	28

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	0.98	0.95	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	1.00	1.00	2.92	0.08	0.40	0.06	0.54	0.58	0.03	0.39
Final Sat.:	1750	3800	1750	1750	5463	137	700	108	942	1021	49	681

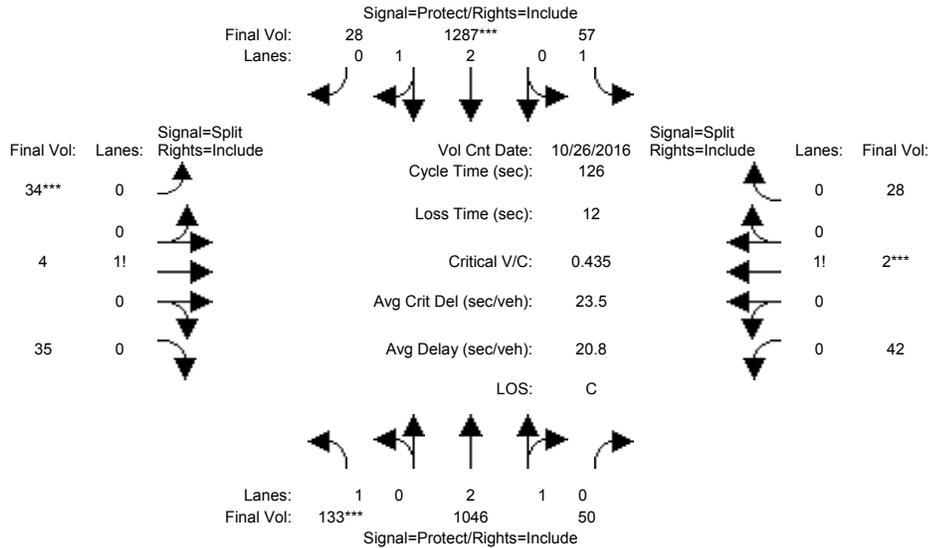
Capacity Analysis Module:												
Vol/Sat:	0.08	0.24	0.03	0.03	0.20	0.20	0.04	0.04	0.04	0.04	0.04	0.04
Crit Moves:	****			****			****			****		
Green Time:	24.1	78.2	78.2	10.5	64.7	64.7	12.0	12.0	12.0	13.3	13.3	13.3
Volume/Cap:	0.40	0.39	0.05	0.39	0.40	0.40	0.39	0.39	0.39	0.39	0.39	0.39
Delay/Veh:	45.4	12.1	9.4	56.4	18.9	18.9	55.1	55.1	55.1	53.9	53.9	53.9
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:	45.4	12.1	9.4	56.4	18.9	18.9	55.1	55.1	55.1	53.9	53.9	53.9
LOS by Move:	D	B	A	E	B	B	E	E	E	D	D	D
HCM2k95thQ:	10	16	2	4	16	16	6	6	6	6	6	6

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

City of San Jose
1495 S. Winchester Boulevard Mixed-Use Development

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

Intersection #3882: DAVID/WINCHESTER



Approach:	North Bound			South Bound			East Bound			West Bound		
	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:	26 Oct 2016	<<	5:00-6:00
Base Vol:	123	1044	50	57	1280	28
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	123	1044	50	57	1280	28
Added Vol:	10	2	0	0	7	0
ATI:	0	0	0	0	0	0
Initial Fut:	133	1046	50	57	1287	28
User Adj:	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
PHF Volume:	133	1046	50	57	1287	28
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	133	1046	50	57	1287	28
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	133	1046	50	57	1287	28

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	0.92	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.86	0.14	1.00	2.93	0.07	0.47	0.05	0.48	0.58	0.03	0.39
Final Sat.:	1750	5344	255	1750	5481	119	815	96	839	1021	49	681

Capacity Analysis Module:												
Vol/Sat:	0.08	0.20	0.20	0.03	0.23	0.23	0.04	0.04	0.04	0.04	0.04	0.04
Crit Moves:	****			****			****			****		
Green Time:	22.0	70.1	70.1	19.9	68.0	68.0	12.1	12.1	12.1	11.9	11.9	11.9
Volume/Cap:	0.44	0.35	0.35	0.21	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Delay/Veh:	47.4	15.5	15.5	46.5	17.5	17.5	55.5	55.5	55.5	55.7	55.7	55.7
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:	47.4	15.5	15.5	46.5	17.5	17.5	55.5	55.5	55.5	55.7	55.7	55.7
LOS by Move:	D	B	B	D	B	B	E	E	E	E	E	E
HCM2k95thQ:	10	15	15	4	18	18	7	7	7	7	7	7

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

Appendix D

Vehicle Queuing Calculations

Winchester/David

NBL

AM

Existing Conditions

Avg. Queue Per Lane in Veh= 3.1

Percentile = 0.95 6

Winchester/David

NBL

AM

Background Conditions

Avg. Queue Per Lane in Veh= 3.1

Percentile = 0.95 6

Winchester/David

NBL

AM

Background Plus Project Conditions

Avg. Queue Per Lane in Veh= 3.5

Percentile = 0.95 7

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0450	0.0450	0
0.1397	0.1847	1
0.2165	0.4012	2
0.2237	0.6248	3
0.1733	0.7982	4
0.1075	0.9057	5
0.0555	0.9612	6
0.0246	0.9858	7
0.0095	0.9953	8
0.0033	0.9986	9
0.0010	0.9996	10
0.0003	0.9999	11
0.0001	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0450	0.0450	0
0.1397	0.1847	1
0.2165	0.4012	2
0.2237	0.6248	3
0.1733	0.7982	4
0.1075	0.9057	5
0.0555	0.9612	6
0.0246	0.9858	7
0.0095	0.9953	8
0.0033	0.9986	9
0.0010	0.9996	10
0.0003	0.9999	11
0.0001	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0302	0.0302	0
0.1057	0.1359	1
0.1850	0.3208	2
0.2158	0.5366	3
0.1888	0.7254	4
0.1322	0.8576	5
0.0771	0.9347	6
0.0385	0.9733	7
0.0169	0.9901	8
0.0066	0.9967	9
0.0023	0.9990	10
0.0007	0.9997	11
0.0002	0.9999	12
0.0001	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Winchester/David

NBL

PM

Existing Conditions

Avg. Queue Per Lane in Veh= 4.3

Percentile = 0.95 8

Winchester/David

NBL

PM

Background Conditions

Avg. Queue Per Lane in Veh= 4.3

Percentile = 0.95 8

Winchester/David

NBL

PM

Background Plus Project Conditions

Avg. Queue Per Lane in Veh= 4.7

Percentile = 0.95 9

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0136	0.0136	0
0.0583	0.0719	1
0.1254	0.1974	2
0.1798	0.3772	3
0.1933	0.5704	4
0.1662	0.7367	5
0.1191	0.8558	6
0.0732	0.9290	7
0.0393	0.9683	8
0.0188	0.9871	9
0.0081	0.9952	10
0.0032	0.9983	11
0.0011	0.9995	12
0.0004	0.9998	13
0.0001	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0136	0.0136	0
0.0583	0.0719	1
0.1254	0.1974	2
0.1798	0.3772	3
0.1933	0.5704	4
0.1662	0.7367	5
0.1191	0.8558	6
0.0732	0.9290	7
0.0393	0.9683	8
0.0188	0.9871	9
0.0081	0.9952	10
0.0032	0.9983	11
0.0011	0.9995	12
0.0004	0.9998	13
0.0001	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0091	0.0091	0
0.0427	0.0518	1
0.1005	0.1523	2
0.1574	0.3097	3
0.1849	0.4946	4
0.1738	0.6684	5
0.1362	0.8046	6
0.0914	0.8960	7
0.0537	0.9497	8
0.0281	0.9778	9
0.0132	0.9910	10
0.0056	0.9966	11
0.0022	0.9988	12
0.0008	0.9996	13
0.0003	0.9999	14
0.0001	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Winchester/Hamilton
 SBL
 AM
 Existing Conditions
 Avg. Queue Per Lane in Veh= 8.2
 Percentile = 0.95 13

Winchester/Hamilton
 SBL
 AM
 Background Conditions
 Avg. Queue Per Lane in Veh= 9.7
 Percentile = 0.95 15

Winchester/Hamilton
 SBL
 AM
 Background Plus Project Conditions
 Avg. Queue Per Lane in Veh= 9.9
 Percentile = 0.95 15

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0003	0.0003	0
0.0023	0.0025	1
0.0092	0.0118	2
0.0252	0.0370	3
0.0517	0.0887	4
0.0849	0.1736	5
0.1160	0.2896	6
0.1358	0.4254	7
0.1392	0.5647	8
0.1269	0.6915	9
0.1040	0.7955	10
0.0776	0.8731	11
0.0530	0.9261	12
0.0334	0.9595	13
0.0196	0.9791	14
0.0107	0.9898	15
0.0055	0.9953	16
0.0026	0.9979	17
0.0012	0.9991	18
0.0005	0.9997	19
0.0002	0.9999	20
0.0001	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0001	0.0001	0
0.0006	0.0007	1
0.0029	0.0035	2
0.0093	0.0129	3
0.0226	0.0355	4
0.0439	0.0793	5
0.0709	0.1502	6
0.0982	0.2485	7
0.1191	0.3676	8
0.1284	0.4960	9
0.1245	0.6205	10
0.1098	0.7303	11
0.0888	0.8191	12
0.0662	0.8853	13
0.0459	0.9312	14
0.0297	0.9609	15
0.0180	0.9789	16
0.0103	0.9892	17
0.0055	0.9947	18
0.0028	0.9975	19
0.0014	0.9989	20
0.0006	0.9995	21
0.0003	0.9998	22
0.0001	0.9999	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0001	0.0001	0
0.0005	0.0005	1
0.0025	0.0030	2
0.0081	0.0111	3
0.0201	0.0312	4
0.0398	0.0710	5
0.0656	0.1366	6
0.0928	0.2294	7
0.1148	0.3442	8
0.1263	0.4705	9
0.1250	0.5955	10
0.1125	0.7081	11
0.0928	0.8009	12
0.0707	0.8716	13
0.0500	0.9216	14
0.0330	0.9546	15
0.0204	0.9751	16
0.0119	0.9870	17
0.0065	0.9935	18
0.0034	0.9969	19
0.0017	0.9986	20
0.0008	0.9994	21
0.0004	0.9997	22
0.0002	0.9999	23
0.0001	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Winchester/Hamilton
 SBL
 PM
 Existing Conditions
 Avg. Queue Per Lane in Veh= 10.3
 Percentile = 0.95 16

Winchester/Hamilton
 SBL
 PM
 Background Conditions
 Avg. Queue Per Lane in Veh= 12.6
 Percentile = 0.95 19

Winchester/Hamilton
 SBL
 PM
 Background Plus Project Conditions
 Avg. Queue Per Lane in Veh= 12.9
 Percentile = 0.95 19

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0
0.0003	0.0004	1
0.0018	0.0022	2
0.0061	0.0083	3
0.0158	0.0241	4
0.0325	0.0566	5
0.0558	0.1123	6
0.0821	0.1944	7
0.1057	0.3001	8
0.1209	0.4210	9
0.1246	0.5456	10
0.1166	0.6622	11
0.1001	0.7623	12
0.0793	0.8416	13
0.0584	0.9000	14
0.0401	0.9400	15
0.0258	0.9658	16
0.0156	0.9815	17
0.0089	0.9904	18
0.0048	0.9953	19
0.0025	0.9978	20
0.0012	0.9990	21
0.0006	0.9996	22
0.0003	0.9998	23
0.0001	0.9999	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0003	0.0003	2
0.0011	0.0014	3
0.0035	0.0050	4
0.0089	0.0139	5
0.0187	0.0326	6
0.0337	0.0664	7
0.0531	0.1195	8
0.0744	0.1939	9
0.0937	0.2876	10
0.1074	0.3950	11
0.1127	0.5077	12
0.1093	0.6169	13
0.0983	0.7153	14
0.0826	0.7978	15
0.0650	0.8629	16
0.0482	0.9111	17
0.0337	0.9448	18
0.0224	0.9672	19
0.0141	0.9813	20
0.0085	0.9898	21
0.0048	0.9946	22
0.0027	0.9973	23
0.0014	0.9987	24
0.0007	0.9994	25
0.0003	0.9997	26
0.0002	0.9999	27
0.0001	0.9999	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0000	0.0000	0
0.0000	0.0000	1
0.0002	0.0002	2
0.0009	0.0011	3
0.0029	0.0040	4
0.0074	0.0115	5
0.0160	0.0274	6
0.0295	0.0569	7
0.0475	0.1044	8
0.0681	0.1725	9
0.0878	0.2604	10
0.1030	0.3634	11
0.1107	0.4741	12
0.1099	0.5840	13
0.1013	0.6853	14
0.0871	0.7724	15
0.0702	0.8426	16
0.0533	0.8959	17
0.0382	0.9341	18
0.0259	0.9600	19
0.0167	0.9767	20
0.0103	0.9870	21
0.0060	0.9930	22
0.0034	0.9964	23
0.0018	0.9982	24
0.0009	0.9991	25
0.0005	0.9996	26
0.0002	0.9998	27
0.0001	0.9999	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Winchester/Hamilton
 EBL
 AM
 Existing Conditions
 Avg. Queue Per Lane in Veh= 2.6
 Percentile = 0.95 5

Winchester/Hamilton
 EBL
 AM
 Background Conditions
 Avg. Queue Per Lane in Veh= 3.2
 Percentile = 0.95 6

Winchester/Hamilton
 EBL
 AM
 Background Plus Project Conditions
 Avg. Queue Per Lane in Veh= 3.2
 Percentile = 0.95 6

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0743	0.0743	0
0.1931	0.2674	1
0.2510	0.5184	2
0.2176	0.7360	3
0.1414	0.8774	4
0.0735	0.9510	5
0.0319	0.9828	6
0.0118	0.9947	7
0.0038	0.9985	8
0.0011	0.9996	9
0.0003	0.9999	10
0.0001	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
0.0000	1.0000	46
0.0000	1.0000	47
0.0000	1.0000	48
0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
0.0000	1.0000	53
0.0000	1.0000	54
0.0000	1.0000	55
0.0000	1.0000	56
0.0000	1.0000	57
0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0408	0.0408	0
0.1304	0.1712	1
0.2087	0.3799	2
0.2226	0.6025	3
0.1781	0.7806	4
0.1140	0.8946	5
0.0608	0.9554	6
0.0278	0.9832	7
0.0111	0.9943	8
0.0040	0.9982	9
0.0013	0.9995	10
0.0004	0.9999	11
0.0001	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
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0.0000	1.0000	48
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0.0000	1.0000	56
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0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0408	0.0408	0
0.1304	0.1712	1
0.2087	0.3799	2
0.2226	0.6025	3
0.1781	0.7806	4
0.1140	0.8946	5
0.0608	0.9554	6
0.0278	0.9832	7
0.0111	0.9943	8
0.0040	0.9982	9
0.0013	0.9995	10
0.0004	0.9999	11
0.0001	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
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0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
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0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45
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0.0000	1.0000	49
0.0000	1.0000	50
0.0000	1.0000	51
0.0000	1.0000	52
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0.0000	1.0000	58
0.0000	1.0000	59
0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Winchester/Hamilton
 EBL
 PM
 Existing Conditions
 Avg. Queue Per Lane in Veh= 4.1
 Percentile = 0.95 8

Winchester/Hamilton
 EBL
 PM
 Background Conditions
 Avg. Queue Per Lane in Veh= 4.7
 Percentile = 0.95 9

Winchester/Hamilton
 EBL
 PM
 Background Plus Project Conditions
 Avg. Queue Per Lane in Veh= 4.8
 Percentile = 0.95 9

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0166	0.0166	0
0.0679	0.0845	1
0.1393	0.2238	2
0.1904	0.4142	3
0.1951	0.6093	4
0.1600	0.7693	5
0.1093	0.8786	6
0.0640	0.9427	7
0.0328	0.9755	8
0.0150	0.9905	9
0.0061	0.9966	10
0.0023	0.9989	11
0.0008	0.9997	12
0.0002	0.9999	13
0.0001	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
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0.0000	1.0000	64
0.0000	1.0000	65

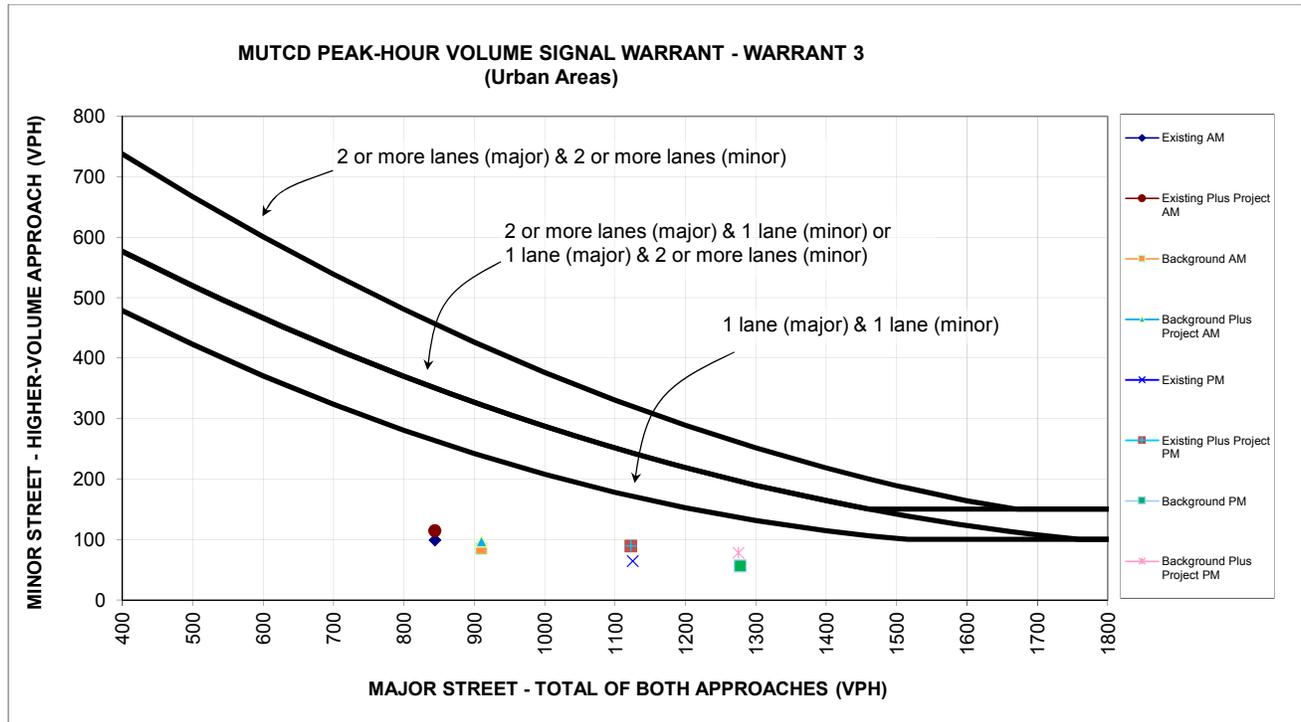
Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0091	0.0091	0
0.0427	0.0518	1
0.1005	0.1523	2
0.1574	0.3097	3
0.1849	0.4946	4
0.1738	0.6684	5
0.1362	0.8046	6
0.0914	0.8960	7
0.0537	0.9497	8
0.0281	0.9778	9
0.0132	0.9910	10
0.0056	0.9966	11
0.0022	0.9988	12
0.0008	0.9996	13
0.0003	0.9999	14
0.0001	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
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0.0000	1.0000	22
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0.0000	1.0000	60
0.0000	1.0000	61
0.0000	1.0000	62
0.0000	1.0000	63
0.0000	1.0000	64
0.0000	1.0000	65

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.0082	0.0082	0
0.0395	0.0477	1
0.0948	0.1425	2
0.1517	0.2942	3
0.1820	0.4763	4
0.1747	0.6510	5
0.1398	0.7908	6
0.0959	0.8867	7
0.0575	0.9442	8
0.0307	0.9749	9
0.0147	0.9896	10
0.0064	0.9960	11
0.0026	0.9986	12
0.0009	0.9995	13
0.0003	0.9999	14
0.0001	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
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0.0000	1.0000	24
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Appendix E

Signal Warrant Checks

2 . Winchester Boulevard and Cadillac Drive



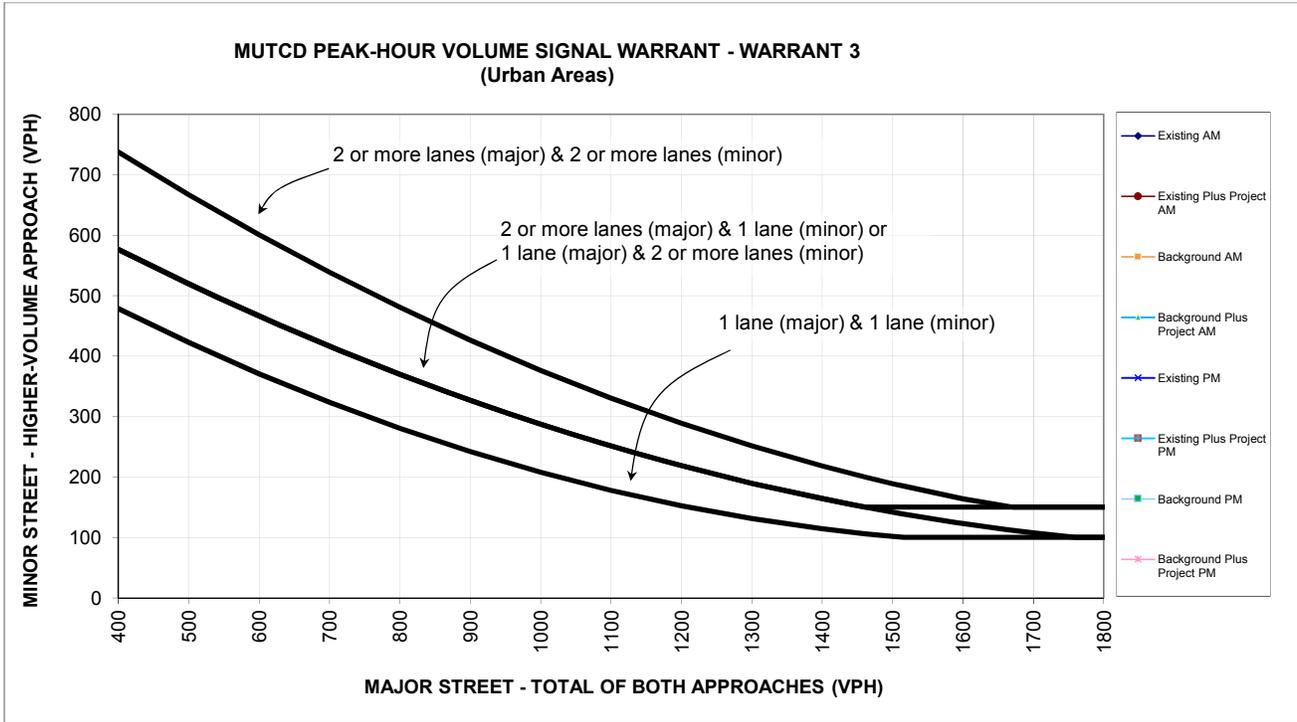
Source: Figure 4C-3 of the Manual on Uniform Traffic Control and Devices (MUTCD) from California Department of Transportation (Caltrans).

* 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

		Approach Lanes		Existing AM	Existing Plus Project AM	Background AM	Background Plus Project AM
		2 or	One More				
Major Street - Both Approaches	Winchester Boulevard		X	844	844	910	910
Minor Street - Highest Approach	Cadillac Dr	X		99	114	84	97
Maximum warrant threshold for minor street volume				351	351	323	323
Difference between warrant threshold & minor street volume				252	237	239	226
Warrant Met?				No	No	No	No

		Approach Lanes		Existing PM	Existing Plus Project PM	Background PM	Background Plus Project PM
		2 or	One More				
Major Street - Both Approaches	Winchester Boulevard		X	1125	1122	1278	1275
Minor Street - Highest Approach	Cadillac Dr	X		64	89	56	78
Maximum warrant threshold for minor street volume				243	244	196	197
Difference between warrant threshold & minor street volume				179	155	140	119
Warrant Met?				No	No	No	No

3 . Winchester Boulevard and Colonial Way



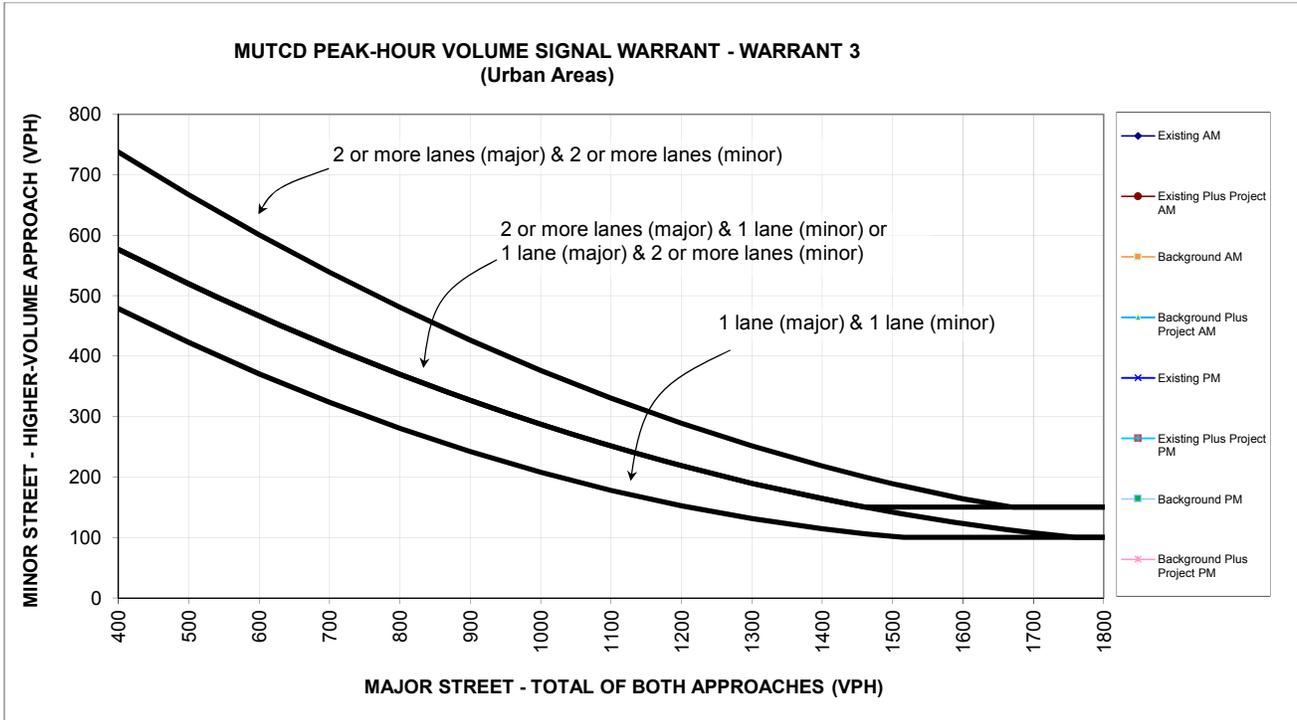
Source: Figure 4C-3 of the Manual on Uniform Traffic Control and Devices (MUTCD) from California Department of Transportation (Caltrans).

* 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

		Approach Lanes		Existing AM	Existing Plus Project AM	Background AM	Background Plus Project AM
		2 or One	More				
Major Street - Both Approaches	Winchester Boulevard		X	2212	2238	2364	2390
Minor Street - Highest Approach	Colonial Way	X		44	44	44	44
Maximum warrant threshold for minor street volume				100	100	100	100
Difference between warrant threshold & minor street volume				56	56	56	56
Warrant Met?				No	No	No	No

		Approach Lanes		Existing PM	Existing Plus Project PM	Background PM	Background Plus Project PM
		2 or One	More				
Major Street - Both Approaches	Winchester Boulevard		X	2225	2257	2504	2535
Minor Street - Highest Approach	Colonial Way	X		43	43	43	43
Maximum warrant threshold for minor street volume				100	100	100	100
Difference between warrant threshold & minor street volume				57	57	57	57
Warrant Met?				No	No	No	No

4 . Winchester Boulevard and Impala Drive



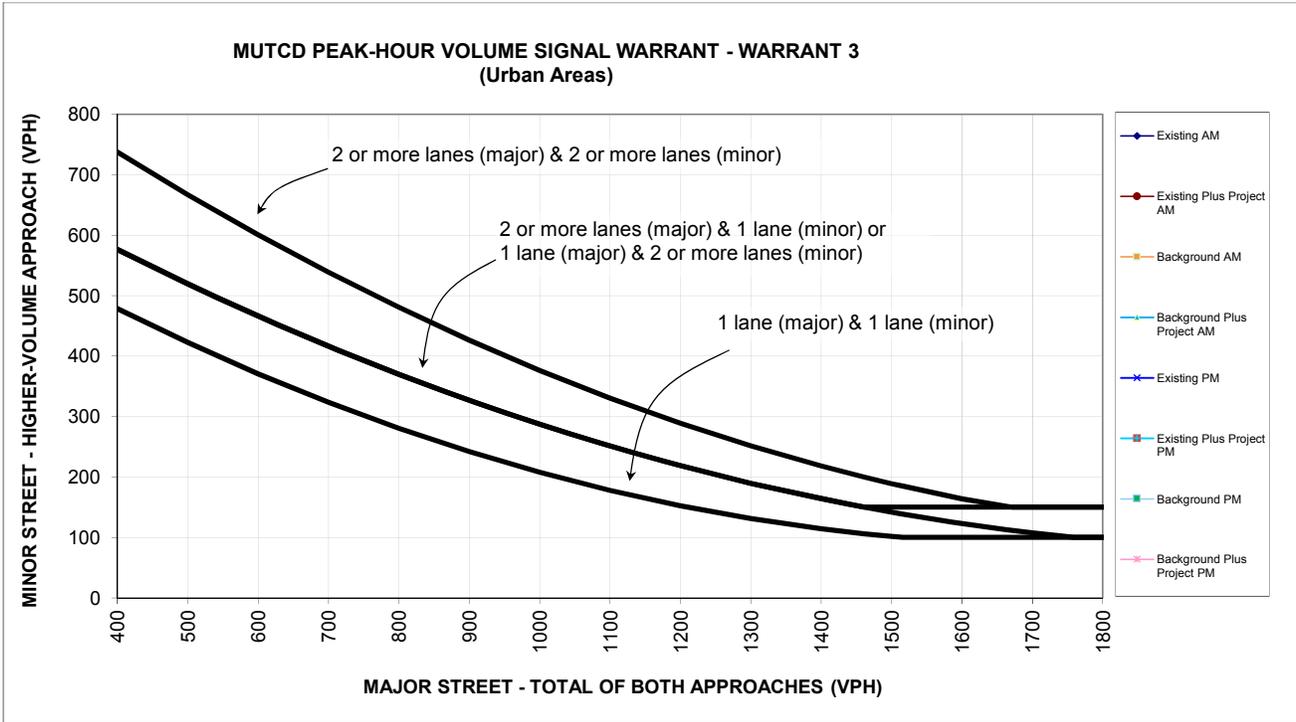
Source: Figure 4C-3 of the Manual on Uniform Traffic Control and Devices (MUTCD) from California Department of Transportation (Caltrans).

* 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

		Approach Lanes		Existing AM	Existing Plus Project AM	Background AM	Background Plus Project AM
		2 or One	More				
Major Street - Both Approaches	Winchester Boulevard		X	2224	2246	2430	2456
Minor Street - Highest Approach	Impala Drive	X		72	72	62	62
Maximum warrant threshold for minor street volume				100	100	100	100
Difference between warrant threshold & minor street volume				28	28	38	38
Warrant Met?				No	No	No	No

		Approach Lanes		Existing PM	Existing Plus Project PM	Background PM	Background Plus Project PM
		2 or One	More				
Major Street - Both Approaches	Winchester Boulevard		X	2272	2299	2589	2620
Minor Street - Highest Approach	Impala Drive	X		45	45	39	39
Maximum warrant threshold for minor street volume				100	100	100	100
Difference between warrant threshold & minor street volume				55	55	61	61
Warrant Met?				No	No	No	No

5 . Winchester Boulevard and Rosemary Lane



Source: Figure 4C-3 of the Manual on Uniform Traffic Control and Devices (MUTCD) from California Department of Transportation (Caltrans).

* 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

		Approach Lanes		Existing AM	Existing Plus Project AM	Background AM	Background Plus Project AM
		2 or One	More				
Major Street - Both Approaches	Winchester Boulevard		X	2238	2260	2465	2491
Minor Street - Highest Approach	Rosemary Lane	X		25	25	25	25
Maximum warrant threshold for minor street volume				100	100	100	100
Difference between warrant threshold & minor street volume				75	75	75	75
Warrant Met?				No	No	No	No

		Approach Lanes		Existing PM	Existing Plus Project PM	Background PM	Background Plus Project PM
		2 or One	More				
Major Street - Both Approaches	Winchester Boulevard		X	2324	2351	2672	2703
Minor Street - Highest Approach	Rosemary Lane	X		27	27	27	27
Maximum warrant threshold for minor street volume				100	100	100	100
Difference between warrant threshold & minor street volume				73	73	73	73
Warrant Met?				No	No	No	No