



HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date: November 28, 2018
To: Korean Buddhist Temple of Dae Seung, SA, Inc.
c/o: Carolyn Garcia, Hanna & Brunetti
From: Gicela Del Rio, T.E.
Subject: Trip Generation Analysis and Site Access and On-Site Circulation Review for the Proposed Korean Buddhist Temple of Dae Seung

Introduction

This memorandum presents the results of the trip generation analysis and site access and on-site circulation review conducted for the proposed Korean Buddhist Temple of Dae Seung in unincorporated Santa Clara County. The project site is located on the north side of Buena Vista Avenue, approximately half a mile east of US 101 and just north of the City of Gilroy. The project site is mainly surrounded by undeveloped/farm land with the exception of two single-family residential units located north of the project site. The site consists of a 340,016-square-foot (s.f.) vacant lot, which would be partially developed with an 8,400-square foot Temple and adjacent parking lot. The remaining undeveloped land will continue to be utilized for farming purposes. The project site location is shown on Figure 1.

The purpose of the trip generation analysis is to estimate the amount of new traffic that would be generated by the proposed project and determine whether the proposed project would affect traffic conditions on the surrounding roadway network at the times when the most congested traffic conditions occur on an average day (AM and PM peak hours of traffic). In addition, the adequacy of the site access driveway were evaluated and any potential issues associated with the proposed vehicular and pedestrian circulation to and through the project site were identified.

It is important to note that this traffic analysis does not constitute, or replace, a comprehensive traffic impact study for the project. The trip generation estimates presented within this report will help determined if a full traffic impact study that will evaluate the effect of the proposed project on the surrounding transportation network during the standard peak hours of commute traffic may be necessary to satisfy County and CEQA guidelines.

Project Description

As proposed, the project would consist of four 2,100-s.f. buildings for a total of 8,400 s.f. of place of assembly (Temple) land use. Three of the four buildings (shown as Buildings A, B, and C on Figure 2) would be designated as assembly areas (Sanctuary, youth and toddler Sanctuary, and dining room area), with a total of 100 seats within the main worship area (Building A) and an additional 100 seats within Building C for the youth and toddler Sanctuaries. The fourth building (Building D) would be a residence hall with a total of 7 guest rooms. A total of 84 parking spaces are being proposed on-site to serve the proposed project. Access to the project site would be provided via a full-access driveway along Buena Vista Avenue.

Based on information provided by the applicant, the facility is anticipated to be in service from 10:00 AM to 12:00 PM and from 7:00 PM to 9:00 PM on weekdays and Saturdays, and between 10:00 AM and 2:00 PM on Sundays. In addition, three special events would take place at the Temple: Buddha's birthday (May), Chinese Thanksgiving (September/October), and Lunar New Year (February), all of which would take



Figure 1
Project Site Location

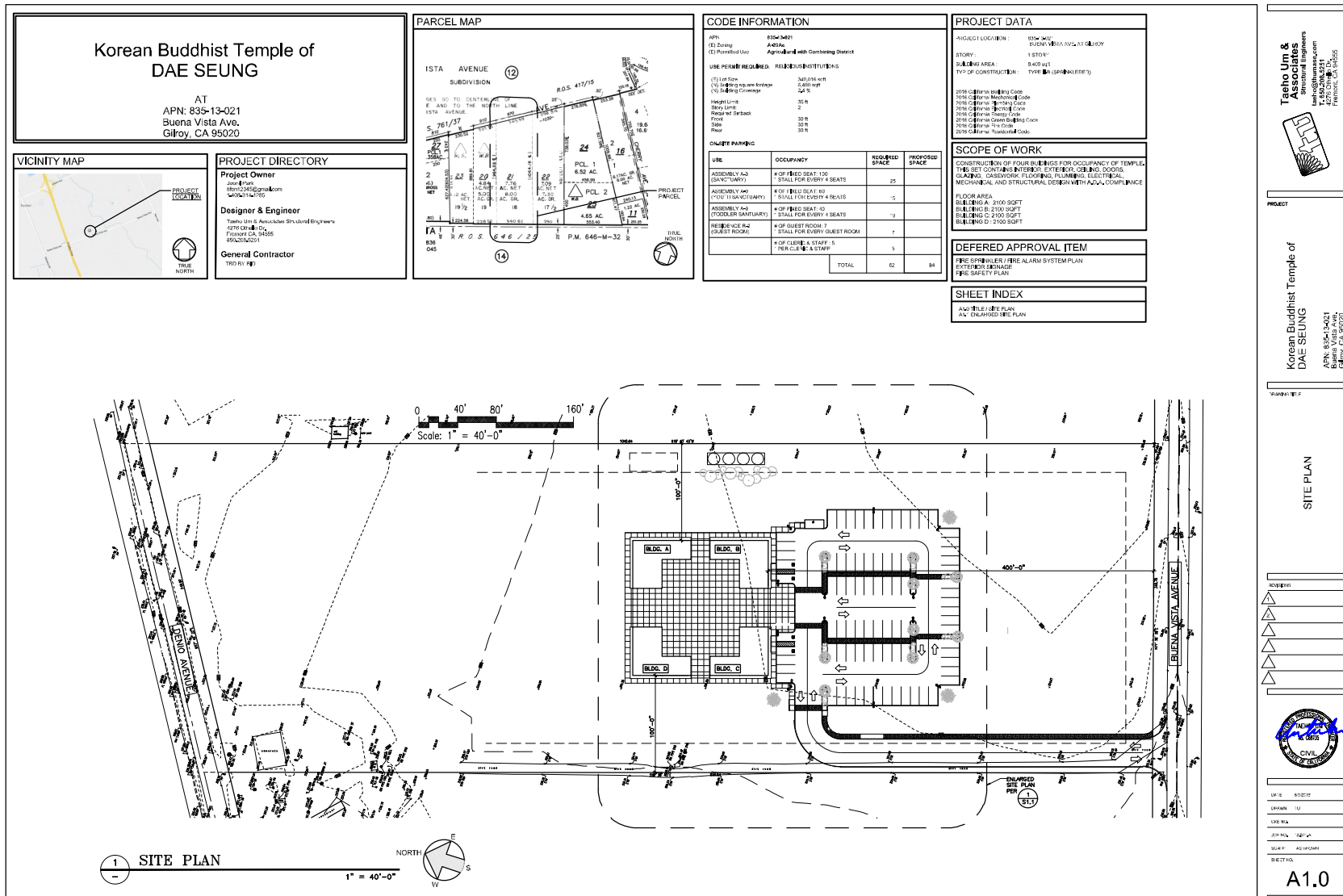


Figure 2
Proposed Project Site Plan

place on a Sunday from 10:00 AM to 2:00 PM. Up to 8 guest monks are anticipated to live at the residence hall on-site for no more than 6 months out of the year.

Initially, the Temple anticipates approximately 10-15 people to attend the weekday services and up to 30 people to attend the weekend services. Future capacity is anticipated to increase to approximately 40-50 people. During the three special events, approximately 60-100 people are anticipated to attend. Once the Temple has been established, approximately 200 people would join the weekend services.

Existing Conditions

Access to the project site is proposed to be provided via Buena Vista Avenue. In the vicinity of the project site, Buena Vista Avenue consists of a two lane, undivided rural roadway with no shoulders and a posted speed limit of 45 miles per hour (mph). It extends from Monterey Road, eastward and over US 101, to New Avenue where it terminates. Buena Vista Avenue provides direct access to individual parcels along both sides of the road and is approximately 20 feet wide along the project site frontage.

Existing Traffic Volumes and Speeds

Speed and count (twenty-four-hour tube counts) data were conducted along Buena Vista Avenue, at the project site frontage, during a 4-day period from Thursday November 1 to Sunday November 4, 2018.

The traffic count data shows that Buena Vista Avenue, along the project site frontage, currently serves approximately 1,350 daily vehicles (both directions combined) on a typical weekday, approximately 1,300 daily vehicles on Saturday, and approximately 1,100 daily vehicles on Sunday. The count data also show Friday to be the day with the highest traffic volumes, with approximately 1,400 daily vehicles.

During the week, the AM peak-hour of traffic along Buena Vista Avenue occurs between 7:00-8:00 AM, with a total of 100 vehicles, and the PM peak-hour occurs between 5:00-6:00 PM with a total of 124 vehicles. Based on the tube counts, it can be concluded that the peak hours along Buena Vista Avenue occur within the standard AM and PM peak-hour periods (7:00-9:00 AM and 4:00-6:00 PM, respectively). The weekend peak-hours were observed to occur at different times and consist of approximately 100 to 135 vehicles.

The 4-day speed surveys revealed that the 85th percentile speeds along Buena Vista Avenue, near the project site, were measured to be 38 and 43 mph in the westbound and eastbound directions, respectively. The mean (average) speed was measured to be 34-35 mph. In the westbound direction, approximately 77% of all traffic travels between the speeds of 31-40 mph while in the eastbound direction approximately 51% of all traffic travels at the same speeds.

The traffic count data are summarized on Table 1. The traffic count and speed data are included in the Appendix.

Existing Traffic Conditions

Buena Vista Avenue, east of US 101, is classified in the City of Gilroy General Plan as a collector street. According to the US Department of Transportation Federal Highway Administration, rural collector streets have annual average daily traffic (AADT) volumes typically ranging between 150 and 2,600 vehicles. Based on the collected traffic volume data, Buena Vista Avenue currently serves the typical traffic volume associated with its street classification.

Overall, the traffic count data show that:

- The highest traffic volumes, both peak-hour and daily, occur during the week with a peak average daily traffic (ADT) volume of approximately 1,400 vehicles,
- The AM peak-hour traffic volumes along Buena Vista Avenue are 100 vehicles or less,
- The PM peak-hour traffic volumes along Buena Vista Avenue are 135 vehicles or less,
- Based on the count data collected, traffic volumes along Buena Vista Avenue are relatively low and within the typical volume range associated with rural collector streets, and

Table 1
Existing Hourly and Daily Traffic Volumes Along Buena Vista Avenue

Time of Day	Number of Vehicles (Both Directions Combined)			
	Thursday	Friday	Saturday	Sunday
12:00 AM	11	13	15	15
1:00	1	1	6	5
2:00	1	2	4	5
3:00	1	0	4	2
4:00	4	6	7	0
5:00	31	33	7	5
6:00	59	37	16	14
7:00	100	69	60	34
8:00	86	87	56	62
9:00	87	77	83	79
10:00	73	78	87	69
11:00	62	93	93	75
12:00 PM	59	71	102	82
1:00	85	91	106	64
2:00	82	101	93	84
3:00	112	135	100	97
4:00	110	119	113	93
5:00	124	127	101	98
6:00	106	80	68	67
7:00	52	57	49	57
8:00	45	46	34	28
9:00	25	29	35	17
10:00	26	35	39	10
11:00	11	19	19	12
Total Daily Vehicles	1,353	1,406	1,297	1,074
Notes: Source: 24-hour tube counts conducted along Buena Vista Avenue, at the project site frontage, from Thursday November 1 st to Sunday November 4 th . <div> <div></div> = Standard weekday AM and PM peak hours. <div></div> = AM peak-hour along study segment. <div></div> = PM peak-hour along study segment. </div>				

- Based on the speed surveys, the measured 85th percentile speeds along Buena Vista Avenue are below the posted speed limit of 45 mph, revealing no indications of speeding or other traffic related issues along Buena Vista Avenue.

Field Observations

Field observations at the project site were conducted during the weekday AM and PM peak hours of traffic. The field observations confirmed the relatively low traffic volumes along Buena Vista Avenue. No apparent traffic issues were observed.

Project Conditions

Project Traffic Volume Estimates

Typically, the magnitude of traffic generated by a proposed project is 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*, latest edition. However, for the purpose of this analysis, the trip generation for the proposed project was estimated based on project specific information, including the times and duration of the Temple's daily services, anticipated number of attendees during typical week and weekend services, anticipated special events, and anticipated maximum number of attendees once the Temple has been fully established. This information was provided by the project applicant and was discussed previously.

Project Trip Generation Estimates

The proposed project would generate traffic at the beginning and end of their daily services. Outside of these times, no significant amount of traffic is anticipated to be generated by the proposed project.

It is assumed that project traffic would be on the roadway network within the hour prior and the hour post each of the daily services. The amount of traffic generated would be relative to the number of people attending each service. Table 2 summarizes the number of people projected to attend each service, based on the anticipated attendance information provided by the project applicant. At full capacity, the Temple would have a maximum capacity for 200 people in the worship areas. Thus, it was assumed in this analysis that once the Temple has been established, a maximum of 200 people could attend any of the services. For the purposes of this evaluation, it was conservatively assumed that at full capacity, 200 people would attend the Sunday service while half of that (100 people) would attend each of the weekday/Saturday services.

Table 2

Korean Buddhist Temple of Dae Seung Service Times and Anticipated Attendance

Service Times	Anticipated Maximum Number of Attendees ¹			
	Current Typical Attendance	Future Capacity Attendance	Special Event Attendance ²	Full Capacity ³
Mon-Sat Morning (10AM - 12PM)	15	40		100
Mon-Sat Evening (7PM - 9PM)	15	40		100
Sunday (10AM - 2PM)	30	50	100	200
Notes:				
¹ Source: Project information provided by the project applicant.				
² Four "Special Events" would take place at the Temple, following the lunar calendar and include: May – Buddha's birthday; Sept/Oct – Chinese Thanksgiving; Feb – Lunar New Year. Special Events would take place on Sunday from 10:00AM to 2:00PM and are anticipated to be attended by 60-100 people.				
³ After the Temple has been established (assumed full capacity), it is anticipated that a maximum of 200 people would attend the services. It is assumed in the analysis that at full capacity, 200 people will attend the Sunday Service but only half of that (100 people) would attend the weekday and Saturday Services.				

Based on the number of people attending each service and an average vehicle occupancy rate of 2 persons per vehicle (rate provided by project applicant), the number of vehicular trips generated by the proposed project before and after each service were estimated and are summarized in Table 3. Based on the above assumptions, the maximum number of project trips that would arrive to/depart from the project site during a single hour (peak-hour of the project) is estimated to occur on Sunday, with 100 inbound trips between 9:00 and 10:00 AM and 100 outbound trips between 2:00 and 3:00 PM. During the week, to project is estimated to generate approximately 50 trips during a single one-hour period, and all project traffic would be generated outside of the standard weekday peak hours.

Table 3
Project Trip Generation Estimates

Vehicle Trip Generation Estimates ¹														
Monday - Saturday Services ²														
Sunday Service ³														
Time of Day		Current Typical Attendance	Future Capacity Attendance	Full Buildout Attendance	Maximum Trip Generation (Full Buildout)			Current Typical Attendance	Future Capacity Attendance	Special Event Attendance	Full Buildout Attendance	Maximum Trip Generation (Full Buildout)		
					In	Out	Total					In	Out	Total
12:00 AM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 1:00 AM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 2:00 AM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 3:00 AM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 4:00 AM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 5:00 AM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 6:00 AM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 7:00 AM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 8:00 AM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 9:00 AM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	Arrivals	8	20	50	50	0	50	15	25	50	100	100	0	100
to 10:00 AM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 11:00 AM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 12:00 PM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	Arrivals	0	0	0	0	50	50	0	0	0	0	0	0	0
to 1:00 PM	Departures	8	20	50	0	0	0	0	0	0	0	0	0	0
1:00 PM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 2:00 PM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	100	100
to 3:00 PM	Departures	0	0	0	0	0	0	15	25	50	100	0	0	0
3:00 PM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 4:00 PM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 5:00 PM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 6:00 PM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	Arrivals	8	20	50	50	0	50	0	0	0	0	0	0	0
to 7:00 PM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 8:00 PM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 9:00 PM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 10:00 PM	Departures	8	20	50	0	50	50	0	0	0	0	0	0	0
10:00 PM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 11:00 PM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	Arrivals	0	0	0	0	0	0	0	0	0	0	0	0	0
to 12:00 AM	Departures	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL														
DAILY TRIPS: ⁴		32	80	200	100	100	200	30	50	100	200	100	100	200
Comparison to Trip Generation Estimates Based on ITE Trip Generation Rates: ⁵														
Land Use	Size	Peak Hour			In	Out	Total	Peak Hour			In	Out	Total	
Church	8,400 square feet	AM Peak-Hour of Generator:			3	2	5	Sunday Peak-Hour of Generator:			40	44	84	
		PM Peak-Hour of Generator:			4	3	7							
		Saturday Peak-Hour of Generator:			14	9	23							

Notes:
¹ Trip generation estimates are based on project information provided by the project applicant, which includes days and times of services as well as anticipated number of attendees at each service.
² Monday through Saturday services include a morning service (from 10:00AM to 12:00PM) and an evening service (from 7:00PM to 9:00PM).
³ Sunday service would take place between 10:00AM and 2:00PM.
Shaded times represent standard weekday peak periods.
Boxed times represent proposed project's peak periods.
⁴ Estimated total daily trips are associated with the attendees to the Temple's daily services. Additional trips not associated with the services (such as deliveries, vendors, and visitors) are likely to occur; however, these trips would be negligible.
⁵ For comparison purposes, the estimated project trips based on the project information were compared to trips estimated based on ITE trip generation rates for Church (ITE land use code 560).

Comparison to ITE Trip Generation Rates

For comparison purpose, the above estimated project trips were compared to trips estimated based on ITE trip generation rates for Church (ITE land use code 560). ITE trip generation rates for the weekday AM and PM, Saturday, and Sunday peak-hour of generator were utilized.

The trip generation estimates comparison shows that ITE trip generation estimates for the weekday AM and PM peak-hour of generator are similar to those estimated for the current typical attendance, the Saturday peak-hour of generator are similar to the trips estimated for the future capacity attendance, and the Sunday peak-hour of the generator trips are similar to (and lower than) those estimated based on the full buildout attendance. Therefore, the comparison of trip generation estimates indicates that evaluating the proposed project based on the full buildout attendance information provides a conservative analysis, compared to using ITE rates.

The trip generation estimates based on ITE rates also are shown in Table 3.

Project's Effect on the Surrounding Roadway Network

For the purpose of this evaluation, and as a conservative approach, the project's effect on the surrounding roadway network is based on the traffic conditions that are projected to occur at full buildout (capacity) of the proposed Temple.

Typically, when evaluating a new project, traffic conditions at intersections and freeway segments are analyzed for the standard weekday AM and PM peak hours of traffic (generally the hours between 7:00 AM and 9:00 AM and 4:00 PM and 6:00 PM). It is during these peak commute periods that the most congested traffic conditions occur on an average day. Additionally, analysis methodology, standards, and impact criteria for the evaluation of transportation project impacts are based on traffic conditions during the standard peak hours. As shown on Table 3, the proposed project is not projected to add traffic to the surrounding roadway network during the standard AM and PM peak hours, and therefore, a peak-hour analysis was not completed.

Existing Plus Project Traffic Volumes

The estimated traffic that would be generated by the proposed project was assigned to the adjacent roadway network and project site driveway based on the projected service areas and existing roadway network. The project applicant anticipates that approximately 75 percent (%) of the Temple's attendees would originate from the north while the remaining 25% would originate from the south. The estimated project trip distribution and trip assignment for both the weekday/Saturday and Sunday services are shown on Figures 3 and 4, respectively.

The projected change in traffic volumes along Buena Vista Avenue are shown in Table 4. Based on the information presented in Table 4, the following can be concluded:

- It is projected that traffic increases along Buena Vista Avenue would consist of approximately 200 daily vehicles every day of the week, representing an increase in daily traffic volumes of approximately 15% Monday through Saturday and approximately 19% on Sunday, compared to existing conditions.
- Based on the project information and assumptions, no more than 50 project trips on a weekday/Saturday and no more than 100 trips on Sunday are estimated to be on the roadway network during a single hour.
- All project traffic is projected to be on the roadway network outside of the standard peak-hour periods.
- Even with the addition of the proposed project traffic, Buena Vista Avenue is projected to continue to carry average daily traffic volumes well below the typical acceptable volume range associated with rural collector streets.



Figure 3
Project Trip Distribution and Assignment – Weekday/Saturday Service



Figure 4
Project Trip Distribution and Assignment – Sunday Service

Table 4
Hourly and Daily Traffic Volume Projections Along Buena Vista Avenue

Time of Day		Mon-Sat Project Trips	Number of Vehicles (Both Directions Combined)												
			Thursday			Friday			Saturday			Sunday Project Trips	Sunday		
			Existing	Existing Plus Project	% Change	Existing	Existing Plus Project	% Change	Existing	Existing Plus Project	% Change		Existing	Existing Plus Project	% Change
12:00 AM			11	11		13	13		15	15			15	15	
1:00			1	1		1	1		6	6			5	5	
2:00			1	1		2	2		4	4			5	5	
3:00			1	1		0	0		4	4			2	2	
4:00			4	4		6	6		7	7			0	0	
5:00			31	31		33	33		7	7			5	5	
6:00			59	59		37	37		16	16			14	14	
7:00			100	100		69	69		60	60			34	34	
8:00			86	86		87	87		56	56			62	62	
9:00		50	87	137	57%	77	127	65%	83	133	60%	100	79	179	127%
10:00			73	73		78	78		87	87			69	69	
11:00			62	62		93	93		93	93			75	75	
12:00 PM		50	59	109	85%	71	121	70%	102	152	49%		82	82	
1:00			85	85		91	91		106	106			64	64	
2:00			82	82		101	101		93	93		100	84	184	119%
3:00			112	112		135	135		100	100			97	97	
4:00			110	110		119	119		113	113			93	93	
5:00			124	124		127	127		101	101			98	98	
6:00		50	106	156	47%	80	130	63%	68	118	74%		67	67	
7:00			52	52		57	57		49	49			57	57	
8:00			45	45		46	46		34	34			28	28	
9:00		50	25	75	200%	29	79	172%	35	85	143%		17	17	
10:00			26	26		35	35		39	39			10	10	
11:00			11	11		19	19		19	19			12	12	
0															
Total Daily Vehicles		200	1,353	1,553	15%	1,406	1,606	14%	1,297	1,497	15%	200	1,074	1,274	19%
Notes:															
Source: 24-hour tube counts conducted along Buena Vista Avenue, at the project site frontage, from Thursday November 1st to Sunday November 4th.															
<div></div> = Standard weekday AM and PM peak hours.															

Project Site Access and Circulation

This section describes the proposed site access and on-site circulation, potential access and circulation issues, and recommendations to improve any issues due to the proposed project site layout. The site access and circulation evaluation were performed based on the site plan dated June 5, 2018 prepared by Taeho Um & Associates, presented on Figure 2.

Vehicular Access

Access to the project site would be provided via a single driveway along Buena Vista Avenue located at the western project site boundary. An approximately 400-foot long two-way access roadway would run along the western site boundary and connect the project site driveway and the proposed parking lot. The access roadway is shown on the site plan to be 28 to 28.5 feet wide. The proposed driveway must be designed following Santa Clara County design guidelines and standards.

Project Driveway Operations

It is projected that all project traffic would make a left-turn into the project driveway or a right-turn out of the project driveway. Based on the project trip generation, it is estimated that 50 and 100 vehicles would make a left-turn into the project driveway from eastbound Buena Vista Avenue prior to the weekday/Saturday and Sunday services, respectively. The same number of vehicles would exit the project site at the end of each service. The estimated project trips at the project driveway are shown on Figure 5.

Operations at the proposed project site driveway were evaluated for adequacy to serve the estimated project traffic based on vehicle queue projections. Since Buena Vista Avenue consists of a two lane roadway, project traffic entering the site would have to complete the left-turn into the site from the eastbound through lane on Buena Vista Avenue. Thus, vehicle queues at the project driveway could interfere with traffic operations along Buena Vista Drive. The Poisson probability distribution was utilized to estimate the 95th percentile maximum number of queue vehicles along Buena Vista Avenue at the project driveway, based on the projected traffic volumes. Conservatively assuming full buildout attendance and that all project traffic would arrive at the project site within a 15-minute period prior to the beginning of the service, the operations analysis showed that maximum queues of two vehicles during the week/Saturday service and three vehicles during the Sunday service would form along Buena Vista Avenue. If attendees arrive during a period longer than 15 minutes prior to the beginning of the service, or if the number of attendees is less than that assumed under full buildout capacity, the queue length would be reduced. Additionally, the long access road connecting the project driveway on Buena Vista Avenue and the parking lot would provide approximately 400 feet of space for vehicles to store within the site as they enter/exit the site, without affecting operations along Buena Vista Avenue. Therefore, based on the relatively low traffic volumes on Buena Vista Avenue, operations at the project site driveway are projected to be adequate. The Poisson probability calculations are included in the Appendix.

Sight Distance

Adequate sight distance (sight distance triangles) should be provided at the proposed project site driveway in accordance with the *American Association of State Highway Transportation Officials* (AASHTO) standards. Sight distance triangles should be measured at the driveway 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. Buena Vista Avenue has a designated speed limit of 45 mph. The AASHTO stopping sight distance for a facility with a posted speed limit of 45 mph is 360 feet. Thus, a driver exiting the proposed driveway must be able to see approaching traffic on Buena Vista Avenue at a minimum distance of 360 feet in order to be able to stop and avoid a collision.

It is assumed in the analysis that all project traffic exiting the project site would make a right-turn onto Buena Vista Avenue. Thus, drivers exiting the site must be able to see a minimum distance of 360 feet to the east. Based on field observations, aerial images, and the proximate project driveway location, there are no existing trees or visual obstructions along the project frontage that would obscure sight distance to drivers exiting the

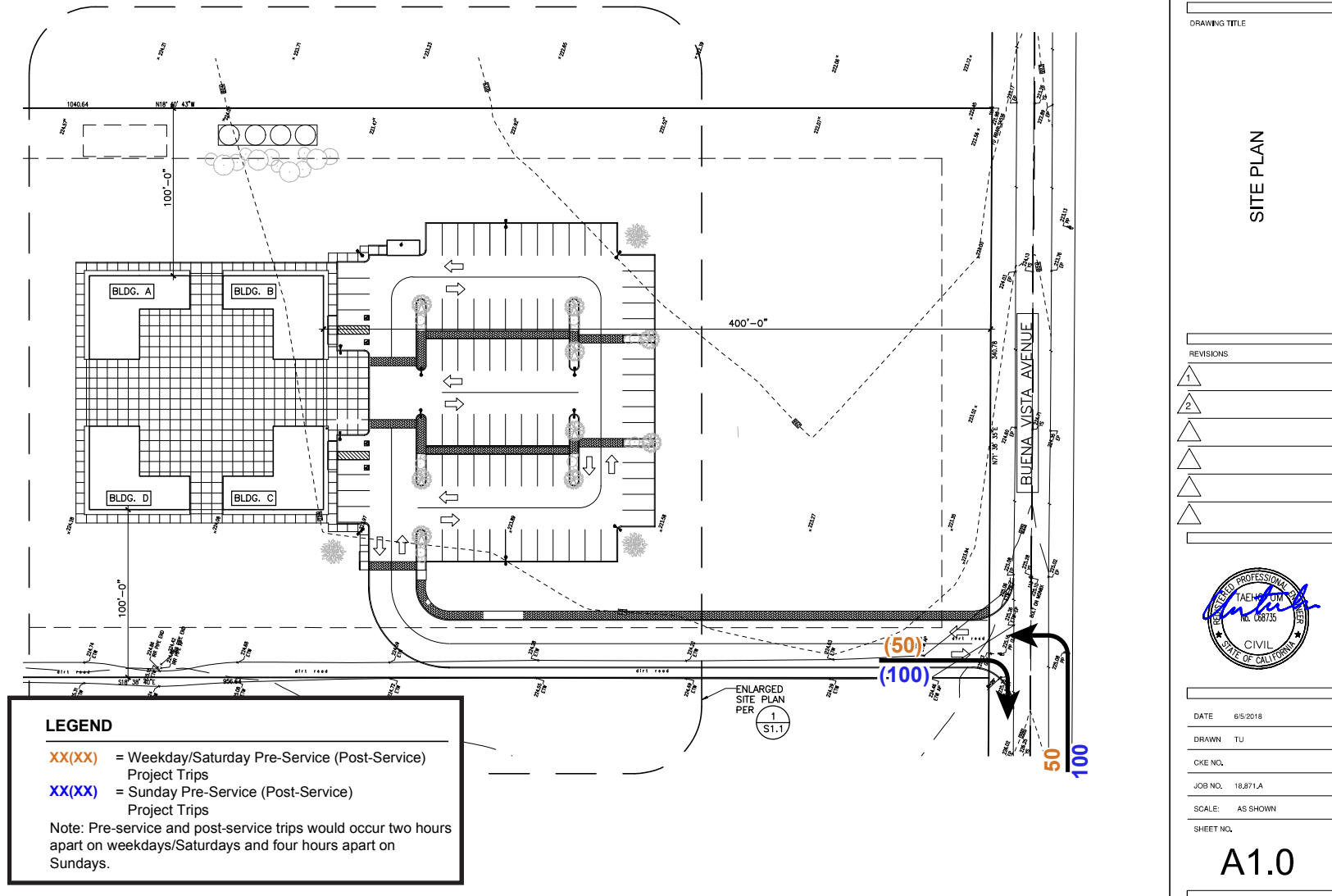


Figure 5
Project Conditions Traffic Volumes at Project Site Driveways

proposed driveway, providing a clear view of approaching westbound traffic on Buena Vista Avenue beyond the minimum required distance of 360 feet. Therefore, it can be concluded that the project driveway would meet the AASHTO minimum stopping sight distance standards.

With the development of the project site, the project driveway should be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see vehicles traveling on Buena Vista Avenue. Any landscaping and signage proposed by the project should be located in such a way to ensure an unobstructed view for drivers exiting the site.

Site Access Recommendations

- The proposed driveway must be designed following Santa Clara County design guidelines and standards.
- The project applicant should ensure that any landscaping and signage proposed by the project should be located in such a way to ensure an unobstructed view for drivers exiting the site.

On-Site Circulation

The project site plan shows the proposed parking lot located adjacent to/south of the proposed buildings. The parking lot includes 90-degree parking stalls located along the parking lot perimeter and within two centrally located rows of parking, for a total of 84 parking spaces. All drive aisles within the parking lot would provide two-way circulation and are shown on the site plan to be 26 to 28 feet wide, while the parking stalls are shown to be 19 feet long and 9.5 feet wide. According to the off-street parking requirements described in the Santa Clara County Zoning Ordinance (Chapter 4.30, April 2006), the minimum aisle width for two-way circulation is 26 feet while the minimum size of parking spaces is 8.5 feet wide by 18 feet long. Therefore, the proposed drive aisle widths and parking stall dimensions would be in compliance with County requirements, allowing for adequate two way circulation and access of all parking stalls.

With the proposed access roadway and parking lot layout, and adhering to Santa Clara County design standards and guidelines, including adequate corner radii, aisle width, parking dimensions, and signage, continuous two-way circulation would be provided throughout the parking lot making every parking stall easily accessible.

Truck Access and Circulation

In addition to adequately serving passenger vehicles, larger vehicles, such as emergency vehicles and garbage trucks, also must be able to access and maneuver through the parking lot. Larger vehicles normally require more space than a passenger vehicle when entering and circulating a site mainly because trucks require a greater turn radii.

The site plan shows the trash enclosures to be located along the eastern project site boundary, directly across from the parking lot entrance. A fire hydrant also is shown next to Building C. Garbage trucks would enter the site, access the trash enclosure, and circulate the parking lot to exit the site. Likewise, emergency vehicles would have to circulate the parking lot to exit the site. Thus, all internal corner radiuses must be designed to be able to accommodate the greater turn radii associated with larger vehicles.

Circulation Recommendations

- The design of the parking lot must adhere to Santa Clara County design standards and guidelines, including adequate corner radii to accommodate the greater turn radii associated with larger vehicles, in order to provide adequate on-site circulation for all vehicles.

Pedestrian Access and Circulation

The site plan shows pedestrian walkways connecting the proposed courtyard/buildings to the parking lot. Within the parking lot, two pedestrian pathways would extend parallel to the drive aisles and between the rows of parking. These pathways would provide a defined pedestrian connection between the buildings and the parking lot while minimizing pedestrian circulation within the drive aisles.

In addition, the site plan also shows a pedestrian connection between the proposed buildings and Buena Vista Avenue. This pedestrian connection would run along the east side of the access road. However, no pedestrian destinations or facilities, including sidewalks, are currently present along Buena Vista Avenue, deterring pedestrian travel along Buena Vista Avenue.

Parking

According to the off-street parking requirements described in the Santa Clara County Zoning Ordinance, religious institutions are required to provide one parking space for every 4 fixed seats plus 1 additional space per cleric and staff. The proposed project would include a total of 200 seats and up to 8 monks, requiring a total of 58 parking spaces.

Accessible parking spaces also must be provided within any parking facility serving the public, such as the proposed project. For parking lots with 76 to 100 parking spaces, a minimum of 4 accessible parking spaces must be provided. In addition, one of every 8 required accessible parking spaces must be a van accessible space, with a minimum of 1 van accessible space per parking facility.

The project proposes to provide a total of 84 parking spaces, representing 26 spaces over the County requirements for the project. Additionally, the site plan shows a total of 4 accessible parking spaces located adjacent to the proposed buildings, satisfying the parking spaces requirements, based on the Santa Clara County Zoning Ordinance.

Parking Recommendations

- Per Santa Clara County parking requirements, one of the accessible parking spaces shall be a van accessible space.

Conclusions

This trip generation analysis was conducted to estimate the amount of new traffic that would be generated by the proposed project, determine its effect on the surrounding roadway network, and provide information to determine if a full traffic study for the project will be required to satisfy County and CEQA guidelines.

The result and recommendations of the trip generation analysis and site access and on-site circulation review are summarized below:

Existing Traffic Conditions

The existing traffic count data show that:

- The highest traffic volumes, both peak-hour and daily, occur during the week with a peak average daily traffic (ADT) volume of approximately 1,400 vehicles,
- The AM peak-hour traffic volumes along Buena Vista Avenue are 100 vehicles or less,
- The PM peak-hour traffic volumes along Buena Vista Avenue are 135 vehicles or less,
- Based on the count data collected, traffic volumes along Buena Vista Avenue are relatively low and within the typical volume range associated with rural collector streets, and
- Based on the speed surveys, the measured 85th percentile speeds along Buena Vista Avenue are below the posted speed limit of 45 mph, revealing no indications of speeding or other traffic related issues along Buena Vista Avenue.

Existing Plus Project Conditions

- Based on the project information, the maximum number of project trips is estimated to occur on Sunday, with 100 inbound trips between 9:00 and 10:00 AM and 100 outbound trips between 2:00 and 3:00 PM.

- The proposed project is not projected to add traffic to the surrounding roadway network during the standard AM and PM peak hours, and therefore, a peak-hour analysis was not completed.
- It is projected that traffic increases along Buena Vista Avenue would consist of approximately 200 daily vehicles every day of the week, representing an increase in daily traffic volumes of approximately 15% Monday through Saturday and approximately 19% on Sunday, compared to existing conditions.
- Based on the project information and assumptions, no more than 50 project trips on a weekday/Saturday and no more than 100 trips on Sunday are estimated to be on the roadway network during a single hour.
- All project traffic is projected to be on the roadway network outside of the standard peak-hour periods.
- Even with the addition of the proposed project traffic, Buena Vista Avenue is projected to continue to carry average daily traffic volumes well below the typical acceptable volume range associated with rural collector streets.

Project Driveway Operations

Conservatively assuming full buildout attendance and that all project traffic would arrive at the project site within a 15-minute period prior to the beginning of the service, the operations analysis showed that maximum queues of two vehicles during the week/Saturday service and three vehicles during the Sunday service would form along Buena Vista Avenue. Therefore, based on the relatively low traffic volumes on Buena Vista Avenue, operations at the project site driveway are projected to be adequate.

Site Access Recommendations

- The proposed driveway must be designed following Santa Clara County design guidelines and standards.
- The project applicant should ensure that any landscaping and signage proposed by the project should be located in such a way to ensure an unobstructed view for drivers exiting the site.

Circulation Recommendations

- The design of the parking lot must adhere to Santa Clara County design standards and guidelines, including adequate corner radii to accommodate the greater turn radii associated with larger vehicles, in order to provide adequate on-site circulation for all vehicles.

Parking Recommendations

- Per Santa Clara County parking requirements, one of the accessible parking spaces shall be a van accessible space.

**Korean Buddhist Temple of Dae Sung Trip Generation
Analysis and Site Access and On-Site Circulation
Review**

Technical Appendices

November 28, 2018

Appendix A

Traffic Counts

All Traffic Data Services, Inc.
www.alltrafficdata.net

Page 1

Site Code: 1
Station ID:
BUENA VISTA AVE E.O NO NAME UNO

Start Time	10/29/2018		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	*	*	*	*	8	3	6	7	7	8	9	6	8	6
01:00	*	*	*	*	*	*	1	0	0	1	4	2	4	1	2	1
02:00	*	*	*	*	*	*	0	1	2	0	3	1	2	3	2	1
03:00	*	*	*	*	*	*	0	1	0	0	3	1	2	0	1	0
04:00	*	*	*	*	*	*	1	3	1	5	3	4	0	0	1	3
05:00	*	*	*	*	*	*	7	24	6	27	3	4	3	2	5	14
06:00	*	*	*	*	*	*	17	42	7	30	7	9	6	8	9	22
07:00	*	*	*	*	*	*	27	73	18	51	29	31	17	17	23	43
08:00	*	*	*	*	*	*	41	45	44	43	26	30	26	36	34	38
09:00	*	*	*	*	*	*	35	52	37	40	36	47	35	44	36	46
10:00	*	*	*	*	*	*	35	38	44	34	45	42	30	39	38	38
11:00	*	*	*	*	*	*	37	25	40	53	49	44	44	31	42	38
12:00 PM	*	*	*	*	*	*	26	33	40	31	56	46	37	45	40	39
01:00	*	*	*	*	*	*	42	43	46	45	63	43	32	32	46	41
02:00	*	*	*	*	*	*	35	47	43	58	43	50	42	42	41	49
03:00	*	*	*	*	*	*	72	40	79	56	53	47	47	50	63	48
04:00	*	*	*	*	*	*	71	39	65	54	56	57	36	57	57	52
05:00	*	*	*	*	*	*	68	56	65	62	44	57	40	58	54	58
06:00	*	*	*	*	*	*	59	47	34	46	31	37	29	38	38	42
07:00	*	*	*	*	*	*	27	25	39	18	28	21	30	27	31	23
08:00	*	*	*	*	*	*	33	12	30	16	20	14	14	14	24	14
09:00	*	*	*	*	*	*	18	7	18	11	20	15	9	8	16	10
10:00	*	*	*	*	*	*	18	8	19	16	18	21	3	7	14	13
11:00	*	*	*	*	*	*	5	6	11	8	12	7	8	4	9	6
Lane	0	0	0	0	0	0	683	670	694	712	659	638	505	569	634	645
Day	0		0		0		1353		1406		1297		1074		1279	
AM Peak	-	-	-	-	-	-	08:00	07:00	08:00	11:00	11:00	09:00	11:00	09:00	11:00	09:00
Vol.	-	-	-	-	-	-	41	73	44	53	49	47	44	44	42	46
PM Peak	-	-	-	-	-	-	15:00	17:00	15:00	17:00	13:00	16:00	15:00	17:00	15:00	17:00
Vol.	-	-	-	-	-	-	72	56	79	62	63	57	47	58	63	58

Comb. Total	0	0	0	1353	1406	1297	1074	1279
ADT	ADT 1,282	AADT 1,282						

All Traffic Data Services, Inc.
www.alltrafficdata.net

Site Code: 1

Station ID:

BUENA VISTA AVE E.O NO NAME UNO

EB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
11/01/18	0	0	0	1	2	1	2	1	0	1	0	0	0	0	8	41-50	3
01:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	44-53	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9-18	1
05:00	1	0	0	0	2	1	0	0	0	2	0	1	0	0	7	31-40	3
06:00	1	2	1	1	3	5	1	1	1	0	0	1	0	0	17	31-40	8
07:00	0	2	1	5	9	5	2	3	0	0	0	0	0	0	27	28-37	14
08:00	1	0	1	1	8	13	11	3	1	1	1	0	0	0	41	36-45	24
09:00	3	3	2	11	11	3	1	1	0	0	0	0	0	0	35	26-35	22
10:00	0	0	3	3	9	9	10	1	0	0	0	0	0	0	35	34-43	19
11:00	3	1	3	7	4	13	4	1	0	0	0	1	0	0	37	31-40	17
12 PM	0	1	3	4	7	6	3	2	0	0	0	0	0	0	26	30-39	13
13:00	0	1	1	7	14	12	3	2	1	1	0	0	0	0	42	31-40	26
14:00	2	1	1	7	9	6	4	2	2	0	0	1	0	0	35	26-35	16
15:00	0	0	1	10	22	21	9	5	1	3	0	0	0	0	72	31-40	43
16:00	0	2	0	11	21	18	11	2	1	2	3	0	0	0	71	31-40	39
17:00	0	1	3	16	12	20	7	7	1	0	1	0	0	0	68	31-40	32
18:00	0	1	4	10	13	14	10	5	0	0	0	1	0	1	59	31-40	27
19:00	0	2	0	6	6	5	5	1	0	1	0	0	0	1	27	26-35	12
20:00	1	1	3	8	5	5	7	0	0	0	1	2	0	0	33	25-34	13
21:00	1	0	0	3	2	4	4	1	2	0	0	0	0	1	18	36-45	8
22:00	1	0	0	0	5	5	3	4	0	0	0	0	0	0	18	31-40	10
23:00	0	0	0	1	1	1	2	0	0	0	0	0	0	0	5	34-43	3
Total	14	19	27	112	165	167	99	42	11	11	6	7	0	3	683		
Percent	2.0%	2.8%	4.0%	16.4%	24.2%	24.5%	14.5%	6.1%	1.6%	1.6%	0.9%	1.0%	0.0%	0.4%			
AM Peak	09:00	09:00	10:00	09:00	09:00	08:00	08:00	07:00	01:00	05:00	08:00	05:00			08:00		
Vol.	3	3	3	11	11	13	11	3	1	2	1	1			41		
PM Peak	14:00	16:00	18:00	17:00	15:00	15:00	16:00	17:00	14:00	15:00	16:00	20:00		18:00	15:00		
Vol.	2	2	4	16	22	21	11	7	2	3	3	2		1	72		

All Traffic Data Services, Inc.
www.alltrafficdata.net

Site Code: 1

Station ID:

BUENA VISTA AVE E.O NO NAME UNO

EB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
11/02/18	0	0	0	1	1	1	1	2	0	0	0	0	0	0	6	39-48	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2	34-43	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	29-38	1
05:00	0	0	2	1	0	2	0	0	0	1	0	0	0	0	6	21-30	3
06:00	0	0	1	1	2	2	0	0	0	0	1	0	0	0	7	31-40	4
07:00	0	0	1	1	8	4	1	1	1	1	0	0	0	0	18	31-40	12
08:00	1	1	0	4	11	17	5	2	3	0	0	0	0	0	44	31-40	28
09:00	0	1	4	7	15	4	2	2	2	0	0	0	0	0	37	26-35	22
10:00	0	1	4	7	16	10	4	2	0	0	0	0	0	0	44	31-40	26
11:00	0	1	3	8	15	8	3	0	1	0	1	0	0	0	40	31-40	23
12 PM	0	0	3	4	13	6	9	4	1	0	0	0	0	0	40	30-39	19
13:00	1	1	1	8	17	10	3	2	2	0	1	0	0	0	46	30-39	27
14:00	0	1	4	7	7	13	5	5	0	1	0	0	0	0	43	31-40	20
15:00	0	1	1	8	26	20	12	7	2	0	2	0	0	0	79	31-40	46
16:00	0	0	3	11	19	14	8	4	5	1	0	0	0	0	65	31-40	33
17:00	1	0	6	12	19	18	6	1	1	1	0	0	0	0	65	31-40	37
18:00	2	0	2	1	13	10	2	2	2	0	0	0	0	0	34	31-40	23
19:00	0	3	2	5	12	6	7	2	1	0	1	0	0	0	39	29-38	18
20:00	0	0	3	2	12	5	4	3	0	1	0	0	0	0	30	31-40	17
21:00	1	0	1	5	7	3	1	0	0	0	0	0	0	0	18	26-35	12
22:00	0	1	1	3	5	5	2	0	0	1	1	0	0	0	19	30-39	10
23:00	0	0	1	1	2	3	3	0	0	1	0	0	0	0	11	34-43	6
Total	6	11	43	97	220	163	79	39	21	8	7	0	0	0	694		
Percent	0.9%	1.6%	6.2%	14.0%	31.7%	23.5%	11.4%	5.6%	3.0%	1.2%	1.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	09:00	11:00	10:00	08:00	08:00	00:00	08:00	05:00	06:00				08:00		
Vol.	1	1	4	8	16	17	5	2	3	1	1				44		
PM Peak	18:00	19:00	17:00	17:00	15:00	15:00	15:00	15:00	16:00	14:00	15:00				15:00		
Vol.	2	3	6	12	26	20	12	7	5	1	2				79		

All Traffic Data Services, Inc.
www.alltrafficdata.net

Site Code: 1

Station ID:

BUENA VISTA AVE E.O NO NAME UNO

EB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
11/03/18	0	0	0	0	2	1	3	1	0	0	0	0	0	0	7	41-50	4
01:00	0	0	0	1	0	0	2	1	0	0	0	0	0	0	4	39-48	3
02:00	0	0	0	2	0	0	0	1	0	0	0	0	0	0	3	20-29	2
03:00	0	0	0	1	2	0	0	0	0	0	0	0	0	0	3	25-34	3
04:00	1	0	1	0	0	0	1	0	0	0	0	0	0	0	3	*	1
05:00	0	0	0	1	1	1	0	0	0	0	0	0	0	0	3	24-33	2
06:00	0	0	0	1	2	2	1	1	0	0	0	0	0	0	7	31-40	4
07:00	0	2	0	2	10	9	3	1	1	1	0	0	0	0	29	31-40	19
08:00	0	0	2	1	7	9	5	2	0	0	0	0	0	0	26	31-40	16
09:00	0	0	1	3	8	10	7	3	3	0	1	0	0	0	36	31-40	18
10:00	1	1	4	8	13	10	4	2	1	1	0	0	0	0	45	30-39	23
11:00	0	0	2	5	15	13	8	4	0	1	1	0	0	0	49	31-40	28
12 PM	0	2	7	11	12	9	6	6	2	1	0	0	0	0	56	26-35	23
13:00	0	1	1	14	13	20	10	4	0	0	0	0	0	0	63	31-40	33
14:00	0	0	4	6	10	14	3	2	2	1	0	0	1	0	43	31-40	24
15:00	1	0	3	8	16	14	5	1	5	0	0	0	0	0	53	31-40	30
16:00	0	0	5	9	14	14	6	5	2	0	1	0	0	0	56	31-40	28
17:00	0	1	2	13	9	10	3	3	2	1	0	0	0	0	44	26-35	22
18:00	1	1	4	8	4	6	4	2	0	0	0	1	0	0	31	21-30	12
19:00	0	1	1	7	8	4	2	3	1	0	0	0	0	1	28	26-35	15
20:00	0	0	0	4	7	4	2	1	0	1	1	0	0	0	20	26-35	11
21:00	0	1	3	2	3	5	4	1	1	0	0	0	0	0	20	34-43	9
22:00	0	1	1	3	5	3	5	0	0	0	0	0	0	0	18	26-35	8
23:00	0	0	1	4	4	1	1	1	0	0	0	0	0	0	12	26-35	8
Total	4	11	42	114	165	159	85	45	20	7	4	1	1	1	659		
Percent	0.6%	1.7%	6.4%	17.3%	25.0%	24.1%	12.9%	6.8%	3.0%	1.1%	0.6%	0.2%	0.2%	0.2%			
AM Peak	04:00	07:00	10:00	10:00	11:00	11:00	11:00	11:00	09:00	07:00	09:00				11:00		
Vol.	1	2	4	8	15	13	8	4	3	1	1				49		
PM Peak	15:00	12:00	12:00	13:00	15:00	13:00	13:00	12:00	15:00	12:00	16:00	18:00	14:00	19:00	13:00		
Vol.	1	2	7	14	16	20	10	6	5	1	1	1	1	1	63		

Site Code: 1

Station ID:

BUENA VISTA AVE E.O NO NAME UNO

EB

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	Pace Speed	Number in Pace
11/04/18	0	1	0	1	3	4	0	0	0	0	0	0	0	0	9	31-40	7
01:00	0	0	1	0	0	1	0	1	1	0	0	0	0	0	4	44-53	2
02:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	25-34	2
03:00	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	24-33	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	1	0	0	0	0	1	1	0	0	0	0	0	0	0	3	34-43	2
06:00	0	0	0	0	2	2	1	0	0	1	0	0	0	0	6	31-40	4
07:00	0	0	0	2	3	2	8	1	0	0	0	0	1	0	17	36-45	10
08:00	1	1	3	4	5	7	3	0	1	1	0	0	0	0	26	31-40	12
09:00	1	0	3	6	7	8	7	2	1	0	0	0	0	0	35	30-39	15
10:00	0	0	0	3	16	5	4	2	0	0	0	0	0	0	30	31-40	21
11:00	1	0	0	6	13	15	5	3	0	1	0	0	0	0	44	31-40	28
12 PM	0	0	7	7	9	10	3	0	1	0	0	0	0	0	37	31-40	19
13:00	0	2	2	7	10	8	2	1	0	0	0	0	0	0	32	29-38	18
14:00	0	0	3	10	7	15	2	4	1	0	0	0	0	0	42	31-40	22
15:00	1	0	2	5	18	12	3	6	0	0	0	0	0	0	47	31-40	30
16:00	2	2	4	8	8	7	2	1	1	1	0	0	0	0	36	26-35	16
17:00	1	2	3	11	9	11	1	0	2	0	0	0	0	0	40	26-35	20
18:00	1	0	5	11	5	4	1	0	1	0	1	0	0	0	29	21-30	16
19:00	3	1	2	8	6	7	1	1	1	0	0	0	0	0	30	26-35	14
20:00	0	1	1	2	4	5	1	0	0	0	0	0	0	0	14	31-40	9
21:00	0	0	3	1	3	1	0	0	1	0	0	0	0	0	9	31-40	4
22:00	0	0	0	1	0	2	0	0	0	0	0	0	0	0	3	29-38	2
23:00	0	0	1	0	1	3	2	0	1	0	0	0	0	0	8	36-45	5
Total	12	10	40	94	132	130	47	22	12	4	1	0	1	0	505		
Percent	2.4%	2.0%	7.9%	18.6%	26.1%	25.7%	9.3%	4.4%	2.4%	0.8%	0.2%	0.0%	0.2%	0.0%			
AM Peak	05:00	00:00	08:00	09:00	10:00	11:00	07:00	11:00	01:00	06:00			07:00		11:00		
Vol.	1	1	3	6	16	15	8	3	1	1			1		44		
PM Peak	19:00	13:00	12:00	17:00	15:00	14:00	12:00	15:00	17:00	16:00	18:00				15:00		
Vol.	3	2	7	11	18	15	3	6	2	1	1				47		
Total	36	51	152	417	682	619	310	148	64	30	18	8	2	4	2541		
Percent	1.4%	2.0%	6.0%	16.4%	26.8%	24.4%	12.2%	5.8%	2.5%	1.2%	0.7%	0.3%	0.1%	0.2%			

15th Percentile : 26 MPH
50th Percentile : 34 MPH
85th Percentile : 43 MPH
95th Percentile : 49 MPH

Stats
10 MPH Pace Speed : 31-40 MPH
Number in Pace : 1301
Percent in Pace : 51.2%
Number of Vehicles > 40 MPH : 584
Percent of Vehicles > 40 MPH : 23.0%
Mean Speed(Average) : 35 MPH

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Site Code: 1

Station ID:

BUENA VISTA AVE E.O NO NAME UNO

WB

[illegible]

All Traffic Data Services, Inc.
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Site Code: 1

Station ID:

BUENA VISTA AVE E.O NO NAME UNO

WB

[illegible]

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Site Code: 1

Station ID:

BUENA VISTA AVE E.O NO NAME UNO

WB[illegible]

All Traffic Data Services, Inc.
www.alltrafficdata.net

Site Code: 1

Station ID:

BUENA VISTA AVE E.O NO NAME UNO

WB

Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	Pace Speed	Number in Pace
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
11/04/18	0	0	0	1	2	1	1	1	0	0	0	0	0	0	6	31-40	3
01:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	29-38	1
02:00	0	0	0	1	1	1	0	0	0	0	0	0	0	0	3	24-33	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	29-38	2
06:00	0	0	0	0	5	3	0	0	0	0	0	0	0	0	8	31-40	8
07:00	0	0	2	2	5	6	1	1	0	0	0	0	0	0	17	31-40	11
08:00	0	0	2	2	15	13	3	1	0	0	0	0	0	0	36	31-40	28
09:00	0	0	0	6	20	15	2	1	0	0	0	0	0	0	44	31-40	35
10:00	1	1	1	4	17	11	4	0	0	0	0	0	0	0	39	31-40	28
11:00	0	0	0	7	10	14	0	0	0	0	0	0	0	0	31	31-40	24
12 PM	0	0	2	7	18	15	3	0	0	0	0	0	0	0	45	31-40	33
13:00	0	0	1	1	10	18	2	0	0	0	0	0	0	0	32	31-40	28
14:00	1	1	0	6	14	15	4	1	0	0	0	0	0	0	42	31-40	29
15:00	0	0	0	4	21	25	0	0	0	0	0	0	0	0	50	31-40	46
16:00	0	0	0	6	30	19	2	0	0	0	0	0	0	0	57	31-40	49
17:00	0	0	1	7	35	15	0	0	0	0	0	0	0	0	58	31-40	50
18:00	0	0	3	6	17	12	0	0	0	0	0	0	0	0	38	31-40	29
19:00	0	0	1	3	14	7	2	0	0	0	0	0	0	0	27	31-40	21
20:00	0	0	1	2	9	2	0	0	0	0	0	0	0	0	14	28-37	11
21:00	0	0	0	0	1	7	0	0	0	0	0	0	0	0	8	31-40	8
22:00	0	0	0	0	6	1	0	0	0	0	0	0	0	0	7	29-38	7
23:00	0	0	0	1	1	1	0	0	1	0	0	0	0	0	4	24-33	2
Total	2	2	14	66	252	203	24	5	1	0	0	0	0	0	569		
Percent	0.4%	0.4%	2.5%	11.6%	44.3%	35.7%	4.2%	0.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	10:00	07:00	11:00	09:00	09:00	10:00	00:00							09:00		
Vol.	1	1	2	7	20	15	4	1							44		
PM Peak	14:00	14:00	18:00	12:00	17:00	15:00	14:00	14:00	23:00						17:00		
Vol.	1	1	3	7	35	25	4	1	1						58		
Total	19	12	80	317	1114	885	145	15	2	0	0	0	0	0	2589		
Percent	0.7%	0.5%	3.1%	12.2%	43.0%	34.2%	5.6%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 29 MPH
50th Percentile : 33 MPH
85th Percentile : 38 MPH
95th Percentile : 41 MPH

Stats
10 MPH Pace Speed : 31-40 MPH
Number in Pace : 1999
Percent in Pace : 77.2%
Number of Vehicles > 40 MPH : 162
Percent of Vehicles > 40 MPH : 6.3%
Mean Speed(Average) : 34 MPH

Appendix B

Queueing Analysis

Project Site Access/Buena Vista
 EBL
 Thursday
 Project Conditions (15-minute period)
 Avg. Queue Per Lane in Veh= 0.4
 Percentile = 0.95 2

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.6556	0.6556	0
0.2768	0.9324	1
0.0584	0.9908	2
0.0082	0.9991	3
0.0009	0.9999	4
0.0001	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	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

Project Site Access/Buena Vista

EBL

Sunday

Project Conditions (15-minute period)

Avg. Queue Per Lane in Veh= 0.9

Percentile = 0.95 3

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.4066	0.4066	0
0.3659	0.7725	1
0.1647	0.9371	2
0.0494	0.9865	3
0.0111	0.9977	4
0.0020	0.9997	5
0.0003	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	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