CEQA TRANSPORTATION ANALYSIS

ATTACHMENT D

to the
Fa Yun Chan Temple Project Initial Study / Mitigated Negative Declaration

July 30, 2024

Ms. Rebecca Auld
Lamphier-Gregory

Transportation Impact Analysis for the 7825 Crow Canyon Road Project

Dear Ms. Auld;

As requested, W-Trans has prepared a Transportation Impact Analysis for the proposed Fa Yun Chan Temple to be located at 7825 Crow Canyon Road in unincorporated Alameda County. The purpose of this letter is to address the project's potential transportation impacts.

Existing Conditions

The study area consists of Crow Canyon Road, which runs along the frontage of the project site in Alameda County. This segment of Crow Canyon Road is classified as a Principal Arterial and generally runs east-west providing access between Castro Valley and San Ramon. Along the project frontage the road has one 12-foot travel lane in each direction and lacks any pedestrian or bicycle facilities. The posted speed limit for this segment is 35 miles per hour (mph).

Project Description

The project site is currently accessed via a driveway located approximately 670 feet south of the intersection of Crow Canyon Road/Norris Canyon Road. The project site consists of approximately ten buildings located on twelve parcels. At present, four individuals reside within the existing buildings on site. The project proposal includes either removing or modifying the existing buildings and constructing several new buildings. Upon completion, the project would be comprised of six buildings. The project also includes the construction of a series of internal roadways and parking areas as well as a new driveway connecting to Crow Canyon Road about 570 feet south of the existing driveway. Upon completion of the new driveway, the existing driveway would be used for emergency vehicle access only.

The proposed project would allow for the following functions to take place at the site:

- Buddha statue tours of the compound every day with up to 30 visitors per day;
- Eight Precept Practice sessions consisting of up to 25 people the first Sunday of every month starting at 8:00 or 9:00 a.m. and ending at approximately 9 a.m. on Monday;
- Meditation sessions for up to 40 people every Sunday (except the first Sunday of each month) between 2:00 and 5:00 p.m.;
- Meditation retreats on a selected Sunday in January, March, and November with 100 people in attendance from 9:00 a.m. to 5:00 p.m.;
- One week-long service event in December with 150 people participating from 9:00 a.m. to 5:00 p.m. daily, Sunday to Saturday, with a maximum of 25 overnight guests; and
- Approximately 15 persons residing full time at the facility.

Trip Generation

Trip generation estimates are typically developed using standard rates published by the Institute of Transportation Engineers (ITE) in the most recent edition of the *Trip Generation Manual*. However, standard rates are not available or

applicable for this unique land use. Therefore, the trip generation potential for this project was developed based on expected vehicle trips associated with full-time temple residents and visitors. For events that 100 or more people would be expected to attend, the event organizers intend to use buses to shuttle up to 50 people per trip between the project site and either the Fa-Yun Temple in Oakland or the nearby Castro Valley BART Station. For all patrons expected to arrive in a private automobile, an occupancy rate of 1.5 persons per vehicle was assumed as it is reasonable to assume that some level of carpooling would occur between family members or others visiting the site together. A table summarizing these assumptions is enclosed for reference.

The expected trip generation potential for the proposed project is indicated in Table 1 and includes an average of net-new 65 trips per day on a typical Sunday with Precepts practice, including 21 trips during the peak hour that is expected to occur from 8:00 a.m. to 9:00 a.m. On a Sunday with the meditation retreat, the proposed project would be expected to generate about 79 net-new daily trips, with 26 trips during the 8:00 a.m. to 9:00 a.m. peak hour. On the busiest day of the year, with the week-long service event that begins on a Sunday morning, approximately 110 daily trips would be expected, with 51 trips during the morning peak hour from 8:00 a.m. to 9:00 a.m.

Table 1 – Trip Generation Summary (Sunday)

Land Use	Typical (Peak Hour 8 – 9 a.m.)				With Retreat (Peak Hour 8 – 9 a.m.)				With Service Event (Peak Hour 8 – 9 a.m.)			
	Daily	**Pk Hr**	**In**	**Out**	**Daily**	**Pk Hr**	**In**	**Out**	**Daily**	**Pk Hr**	**In**	**Out**
Existing												
On-site Residences	-2	-1	-1	0	-2	-1	-1	0	-2	-1	-1	0
Proposed												
On-site Residences	10	2	0	2	10	2	0	2	10	2	0	2
Daily Tours	40	10	10	0	40	10	10	0	40	10	10	0
Precepts Practice	17	10	10	0	-	-	-	-	-	-	-	-
Meditation Retreat	-	-	-	-	31	15	15	0	-	-	-	-
Week-long Service Event	-	-	-	-	-	-	-	-	62	40	40	0
TOTAL	**65**	**21**	**19**	**2**	**79**	**26**	**24**	**2**	**110**	**51**	**49**	**2**

Note: Pk Hr = Peak Hour

Vehicle Traffic Counts

Unfortunately, road closures related to the recent repair of storm damage to Crow Canyon Road prevented any new data collection efforts in 2023. However, according to historical traffic data on Crow Canyon Road gathered prior to the COVID-19 pandemic on June 23, 2019, for the segment between Bollinger Canyon Road and Bellina Canyon Road, this roadway was documented as serving about 8,740 daily vehicles on Sundays, including approximately 719 vehicles per hour (375 eastbound and 344 westbound) during the peak hour from 2:00 to 3:00 p.m. To estimate 2023 traffic volumes, the 2019 observed volumes were factored up using a conservative annual growth rate of two percent. The resulting 2023 traffic volumes forecasted for Crow Canyon Road include approximately 9,500 daily vehicles, with 777 (405 eastbound and 372 westbound) during the peak hour from 2:00 to 3:00 p.m. on a typical Sunday. A copy of the traffic count summary sheet is enclosed.

CEQA Checklist

Following is a discussion and analysis of transportation related CEQA checklist items. The results are summarized in Table 2 and a discussion of each criterion follows.

Table 2 – XVII. TRANSPORTATION/TRAFFIC				
Would the Project:	**Potentially Significant Impact**	**Less than Significant Impact with Mitigation**	**Less than Significant Impact**	**No Impact**
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?			X	
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

Discussion of CEQA Checklist Items

a. Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

The proposed project was evaluated to determine whether there would be conflicts with adopted policies, plans, or programs supporting alternative transportation options such as walking, cycling or using transit.

Alternative Modes

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In the immediate project area, there are no pedestrian facilities along Crow Canyon Road. However, given the nature of the study area, the surrounding rural land use setting, and regional draw of the land use, it is reasonable to assume that very few project patrons would walk to reach the project site.

Bicycle facilities

The *Highway Design Manual*, Caltrans, 2020, classifies bikeways into four categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

In the immediate project area, there are no bicycle facilities.

Transit Facilities

There are no transit facilities within one-half mile of the project site, which is considered an acceptable walking distance. Further, as no pedestrian facilities are present along Crow Canyon Road very few patrons, if any, would be expected to walk between the site and the nearest existing transit services. Patrons may, however, travel between the site and nearby transit stops in a site-provided shuttle. Following is a brief description of these services.

Bay Area Rapid Transit (BART)

The BART system provides regional rail service between San Mateo, San Francisco, Alameda, Santa Clara, and Contra Costa counties, with one station in Castro Valley. This station is located at 3301 Norbridge Avenue and is served by the Dublin/Pleasanton–Daly City line. On weekdays until about 8:30 p.m. service has 15-minute headways. During late nights and on weekends trains operate at 30-minute headways. Typical hours of operation for BART are from 5:00 a.m. to midnight on weekdays, 6:00 a.m. to midnight on Saturdays and 8:00 a.m. midnight on Sundays.

Alameda-Contra Costa Transit District (AC Transit)

Alameda-Contra Costa County Transit (AC Transit) provides fixed route bus service in Alameda and Contra Costa Counties.

AC Transit Line 28 provides service to destinations between San Leandro BART and Hayward BART, including Castro Valley BART and many destinations within Castro Valley. The route serves bus stops along Castro Valley Boulevard, Redwood Road, and Center Street and operates from 5:45 a.m. until 11:05 p.m. on weekdays and until 1:00 am on weekends with 30-minute headways. The bus stop nearest the project site is at Heyer Avenue/Center Street, approximately 3.3 miles from the project site.

Paratransit

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. The study area is served by East Bay Paratransit.

On-Demand Transportation Services

On-demand private vehicle services (e.g., taxi, Uber, Lyft, etc.) are available in Alameda County 24 hours a day. These vehicles can be used for trips within the study area and adjacent destinations.

Impact on Pedestrian, Bicycle or Transit Facilities

The proposed project is not expected to generate significant transit trips as there are no existing stops within an acceptable walking distance. Further, it would not conflict with any policies or plans for these modes.

Finding – The project would have a less-than-significant impact on transit services and pedestrian or bicycle facilities.

b. Would the Project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision(b)?

Vehicle Miles Traveled (VMT)

Alameda County is in the process of preparing guidelines for the analysis of vehicle miles traveled (VMT). Many of the VMT significance criteria that the County is likely to adopt are consistent with guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018. This document identifies several criteria that may be used by

jurisdictions to identify certain types of projects that are unlikely to have a VMT impact and can be "screened" from further VMT analysis and presumed to cause a less-than-significant transportation impact. One of these screening criteria pertains to small projects, which OPR identifies as generating fewer than 110 vehicle trips per day.

This project is expected to generate 65 trips on a typical Sunday. This satisfies the criteria for consideration as a small project for which the impact on vehicles miles traveled can be presumed to be less than significant.

Finding – The project would result in a less-than-significant impact on vehicle miles traveled.

c. *Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Turn Lane Analysis

In designing an intersection, left-turning traffic should be removed from through lanes whenever practical. Ideally, left-turn lanes should be provided at street intersections along major arterial and collector roads wherever left turns are permitted and there is room to provide them. Left-turn facilities should be established on roadways where traffic volumes are high enough to warrant them.

The values from Figure 9-35 in the American Association of State Highway and Transportation Officials' (AASHTO) *A Policy on Geometric Design of Highways and Streets*, 2018 ("Green Book"), were used to determine whether a dedicated left-turn lane would be recommended at the project driveway. The peak hour of vehicle activity for the project would occur from 8:00 to 9:00 a.m. on Sundays. During this period, Crow Canyon Road is expected to carry approximately 375 vehicles with 211 traveling eastbound and 164 traveling westbound. Based on this data, approximately 30 vehicles turning left into the site would be required to satisfy the left-turn lane warrant. Since fewer than 30 total vehicles are estimated to travel to or from the site during a peak hour on a typical Sunday, a dedicated left-turn lane is not warranted along Crow Canyon Road at the proposed driveway location. Further, inbound left-turning vehicles are expected to be somewhat rare since most site patrons are expected to be traveling from the west and entering the site via a right turn. A copy of Figure 9-35 is enclosed for reference.

Site Access and Safety Analysis

Sight distances along Crow Canyon Road at the location of the proposed project driveway were evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distances for minor street approaches that are a driveway are based on stopping sight distance, with the approach travel speed used as the basis for determining the recommended sight distance. Additionally, the stopping sight distance needed for a following driver to stop if there is a vehicle waiting to turn into a side street or driveway is evaluated based on stopping sight distance criterion and the approach speed on the major street.

At the time of the site visit, a spot speed survey was conducted with a sample of 14 vehicles. It was determined that the 85th-percentile travel speed on this segment of Crow Canyon Road is 37 mph, slightly higher than the posted 35-mph speed limit. Applying this observed speed and therefore using a design speed of 40 mph, the minimum sight distance needed is 300 feet.

Field measurements were obtained at the proposed driveway location on Crow Canyon Road. According to field measurements, which consider the topography of Crow Canyon Road, sight distances at the proposed project driveway extend up to 300 feet to the north and exceed 600 feet to the south, which is adequate for the applied design speed of 40 mph. To maintain this sight distance, it is suggested that any vegetation near the project's driveway should be trimmed in accordance with the Federal Highway Administration's guide on *Vegetation Control for Safety*, 2008, which states that any vegetation near the project's driveways should be trimmed to an appropriate height of three feet or less and trees should be trimmed so that nothing hangs below a height of

seven feet from the surface of the roadway. This provides a gap in vegetation for drivers to observe oncoming traffic and safely maneuver from a driveway.

For a motorist traveling westbound on Crow Canyon Road intending to turn left into the project driveway, the stopping sight distance looking west along Crow Canyon Road is approximately 300 feet, providing adequate visibility to allow a following driver to observe and react to a vehicle that may stop in the roadway before making a left turn into the driveway.

Finding – The project must be designed to meet or exceed applicable Federal, State and City codes and regulations, and as a result would not introduce any new hazards in terms of its design or the design of off-site improvements. Adequate sight distance is available at the proposed project driveway location to accommodate all turns entering and exiting the site. Therefore, the project would have a less-than-significant impact regarding geometric design features or incompatible uses.

Recommendation – Although not required by CEQA, to further enhance the site distance at the driveways, it is recommended that vegetation adjacent to the project driveways on Crow Canyon Road be trimmed and maintained. This recommendation is provided for informational purposes only.

d. Would the Project result in inadequate emergency access?

Site Circulation and Emergency Access

The project's driveways and internal parking lot circulation network would be designed to meet current County standards and can therefore be expected to accommodate the access requirements for passenger vehicles. Vehicle access would be provided within the internal parking lot via a network of connected 20- to 24-foot-wide roadways. These roadways would contain sufficient width to accommodate two-way traffic operations for circulating vehicles.

The California Fire Code, Section 503.2.1, states that roads shall have an unobstructed width of not less than 20 feet to accommodate fire apparatus access. The proposed site would satisfy this requirement since all internal roadways would be at least 20 feet wide. Further, since all roadway users must yield the right-of-way to emergency vehicles when using their sirens and lights, the added project-generated traffic would not impact access for emergency vehicles.

California Fire Code, Section D103.2 states that Fire apparatus access roads with grades steeper than 10 percent shall be approved by a fire code official. According to the site plans the proposed driveway would have a profile exceeding a 10 percent grade. The Alameda County Fire Department is currently evaluating these plans for compliance with applicable code requirements. The site design must be found to be acceptable by the Fire Department to be considered a less-than-significant emergency access impact.

Finding – The internal roadway network would satisfy minimum width requirements for fire apparatus access but would have a grade steeper than 10 percent. The design is currently being reviewed by the Alameda County Fire Department and would need to be determined to be acceptable before being allowed to proceed. If approved by the Fire Department, the project would result in a less-than-significant impact regarding adequacy of emergency access.

Non-CEQA Transportation Items

Non-CEQA items are presented for informational purposes only. The adequacy of a project's parking or its potential effect on parking is not considered within the CEQA process unless determined that the project's parking would potentially result in significant secondary effects on the physical environment, which as described below, it would not. To summarize relevant conclusions of the below analysis, limited on-site parking would support use

of shuttles during events rather than more trips via private vehicles, and would not lead to off-site parking or the potential for significant secondary effects on the physical environment.

Parking

The proposed project was analyzed to determine whether the proposed parking supply would be sufficient to satisfy the expected demand. The project as proposed would provide a total of 28 parking spaces comprised of 24 standard spaces, and four disabled access parking spaces.

Parking supply requirements are typically determined using standard rates published in the Alameda County municipal code. However, standard rates are not published for this land use. Parking demand estimates were therefore developed based on the event schedules, number of expected participants, and how many participants would travel by private automobile versus a 50-passenger shuttle bus. These schedules show the times of the day when visitors would arrive and take into consideration carpooling and shuttle use for events with more than 100 participants expected.

According to the event schedule, an estimated 27 spaces would be needed to accommodate parking demand during a typical Sunday, and up to 50 spaces would be needed during special events such as the week-long event held each December. The development of a parking demand management strategy is recommended for all special events so that all parking could be accommodated on-site. This would help avoid vehicles possibly backing up onto Crow Canyon Road and leading to a potential safety or emergency vehicle access impact. The parking management strategy could include the use of parking valets and stacked parking within the parking lots, or use of alternate parking spaces on-site. This management plan should be reviewed by the Alameda County Fire Department to confirm their standards for site access are met. Given the isolated nature of the site, the length of drive aisles and available pavement on site, parking spillover onto Crow Canyon Road and adjacent properties is not expected.

Finding – Although the proposed parking supply of 28 spaces would be sufficient to accommodate demand on a typical Sunday, the project would have a potential deficit of 22 spaces during peak demand for special events, which should be able to be accommodated on site with appropriate management.

Recommendation – Although not required by CEQA, a parking demand management strategy is recommended for all special events when more than 28 total spaces are needed. This recommendation is provided for informational purposes only.

Conclusions

- The proposed temple is expected to generate an average of 65 net-new daily trips on a typical Sunday, including 21 during the peak hour for site-generated trips of 8:00 to 9:00 a.m. The temple is also expected to generate 79 net-new daily trips on a Sunday when there is a meditation retreat. During the busiest day of the year, which would occur at the beginning of the annual week-long retreat, the proposed project is expected to generate about 110 net-new daily trips, including 51 during the peak hour from 8:00 to 9:00 a.m.

- Pedestrian, bicycle, and transit facilities serving the project are limited. However, these types of trips to and from the project site are not generally expected due to the rural location of the project and type of land use. Therefore, alternative facilities are acceptable, and the project would have a less-than-significant impact on transit services and facilities.

- The proposed project would screen out as a small project and would therefore be presumed to have a less-than-significant impact on VMT.

- Based on estimated peak hour volumes along Crow Canyon Road, a dedicated left-turn lane is not warranted for the proposed driveway according to the AASHTO recommended thresholds.

- Sight distances at the proposed project driveway are adequate though vegetation along the project frontage should be maintained to ensure that adequate slight lines are retained. The project would be designed to meet or exceed applicable requirements and as a result would not introduce any new hazards and as such would have a less-than-significant impact regarding geometric design features or incompatible uses.

- The project design is currently being reviewed by the Alameda County Fire Department and would need to be determined to be acceptable before being allowed to proceed. If approved by the Fire Department, the project would result in a less-than-significant impact regarding adequacy of emergency access.

- Although not required by CEQA, a parking demand management strategy is recommended for all events that would have more than 100 attendees. The proposed parking supply of 28 spaces would be sufficient to accommodate the typical demand, but the project would have a potential deficit of 22 parking spaces during special events. This recommendation is provided for informational purposes only.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,

Valerie Haines, EIT
Assistant Engineer

Kenny Jeong, PE (Traffic)
Senior Traffic Engineer

Mark Spencer, PE (Traffic)
Senior Principal

MES/kbj/ALX037.L1

Enclosures: Trip Generation Worksheet, Traffic Counts, AASHTO Left Turn Warrant Figures

TABLE A: ESTIMATED NUMBER OF VISITORS (Sunday)

Line No.	Description	No. of People	Start Time	End Time	ESTIMATED VISITOR ARRIVAL/DEPARTURE BY HOUR OF THE DAY																								
					12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
1	Residents (inbound)	15										2				3					3								
2	Residents (outbound)	15											2				3					3							
3	Buddha Statues tour (inbound)	30	7am	3pm									15				15												
4	Buddha Statues tour (outbound)	30	6pm	6am											15				15										
5	Eight Precepts Practice (inbound only)	25	8am	Next day									15	10															
	Inbound People	63			0	0	0	0	0	0	0	2	30	10	0	3	15	0	0	0	3	0	0	0	0	0	0	0	0
	Outbound People	38			0	0	0	0	0	0	0	0	2	0	15	0	3	0	15	0	0	3	0	0	0	0	0	0	0
	Total People	**101**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**32**	**10**	**15**	**3**	**18**	**0**	**15**	**0**	**3**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

TABLE B: ESTIMATED NUMBER OF VISITOR TRIPS (Sunday)

Line No.	Description	No. of People	Start Time	End Time	ESTIMATED VEHICLE ARRIVAL/DEPARTURE BY HOUR OF THE DAY (INCLUDING OCCUPACY RATE OF 1.5 VISITORS PER VEHICLE)																								
					12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
1	Residents (inbound)	15			0	0	0	0	0	0	0	1.3	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
2	Residents (outbound)	15			0	0	0	0	0	0	0	0	1.3	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0
3	Buddha Statues tour (inbound)	30	7am	3pm	0	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
4	Buddha Statues tour (outbound)	30	6pm	6am	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0
5	Eight Precepts Practice (inbound only)	40	8am	Next day	0	0	0	0	0	0	0	0	10	6.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Inbound Trips	42			0	0	0	0	0	0	0	1.3	20	6.7	0	2	10	0	0	0	2	0	0	0	0	0	0	0	0
	Outbound Trips	25.3			0	0	0	0	0	0	0	0	1.3	0	10	0	2	0	10	0	0	2	0	0	0	0	0	0	0
	Total Trips	**67.3**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1.3**	**21.3**	**6.7**	**10**	**2**	**12**	**0**	**10**	**0**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Peak Hour Trips To Use (Rounded Up)				0	0	0	0	0	0	0	2	22	7	10	2	12	0	10	0	2	2	0	0	0	0	0	0	0

Peak Hour Trips 22

TABLE A: ESTIMATED NUMBER OF VISITORS

Line No.	Description	No. of People	Start Shift Time	End Shift Time	ESTIMATED VISITOR ARRIVAL/DEPARTURE BY HOUR OF THE DAY																								
					12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
1	Residents (inbound)	15										2				3					3								
2	Residents (outbound)	15											2				3					3							
3	Buddha Statues tour (inbound)	30	7am	3pm									15				15												
4	Buddha Statues tour (outbound)	30	6pm	6am											15				15										
5	Meditation Retreat (inbound) car	20	9am	5pm									20																
6	Meditation Retreat (outbound) car	20																				20							
7	Meditation Retreat (inbound) shuttle	80											80																
8	Meditation Retreat (outbound) shuttle	80																				80							
	Inbound People	138			0	0	0	0	0	0	0	2	115	0	0	3	15	0	0	0	3	0	0	0	0	0	0	0	0
	Outbound People	138			0	0	0	0	0	0	0	0	2	0	15	0	3	0	15	0	0	3	100	0	0	0	0	0	0
	Total People	**276**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**117**	**0**	**15**	**3**	**18**	**0**	**15**	**0**	**3**	**3**	**100**	**0**	**0**	**0**	**0**	**0**	**0**

TABLE B: ESTIMATED NUMBER OF VISITOR TRIPS

Line No.	Description	No. of People	Start Shift Time	End Shift Time	ESTIMATED VEHICLE ARRIVAL/DEPARTURE BY HOUR OF THE DAY (INCLUDING OCCUPACY RATE OF 1.5 VISITORS PER VEHICLE)																								
					12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
1	Residents (inbound)	15			0	0	0	0	0	0	0	1.3	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
2	Residents (outbound)	15			0	0	0	0	0	0	0	0	1.3	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
3	Buddha Statues tour (inbound)	30	7am	3pm	0	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Buddha Statues tour (outbound)	30	6pm	6am	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0
5	Meditation Retreat (inbound) car	20	9am	5pm	0	0	0	0	0	0	0	0	13.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Meditation Retreat (outbound) car	20	9am	5pm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.3	0	0	0	0	0	0	0
7	Meditation Retreat (inbound) shuttle	80			0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Meditation Retreat (outbound) shuttle	80			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
	Inbound Trips	40.6			0	0	0	0	0	0	0	1.3	25.3	0	0	2	10	0	0	0	2	0	0	0	0	0	0	0	0	0
	Outbound Trips	40.6			0	0	0	0	0	0	0	0	1.3	0	10	0	2	0	10	0	0	2	15.3	0	0	0	0	0	0	0
	Total Trips	**81.2**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1.3**	**26.6**	**0**	**10**	**2**	**12**	**0**	**10**	**0**	**2**	**2**	**15.3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Peak Hour Trips To Use (Rounded Up)				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**27**	**0**	**10**	**2**	**12**	**0**	**10**	**0**	**2**	**2**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Peak Hour Trips	27																											

TABLE A: ESTIMATED NUMBER OF VISITORS

Line No.	Description	No. of People	Start Shift Time	End Shift Time	ESTIMATED VISITOR ARRIVAL/DEPARTURE BY HOUR OF THE DAY																								
					12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
1	Residents (inbound)	15										2				3					3								
2	Residents (outbound)	15											2				3					3							
3	Buddha Statues tour (inbound)	30	7am	3pm									15				15												
4	Buddha Statues tour (outbound)	30	6pm	6am											15				15										
5	Dharma Retreat (inbound) car	30	9am	5pm									30																
6	Dharma Retreat (outbound) car	30																				30							
7	Dharma Retreat (inbound) shuttle	95											95																
8	Dharma Retreat (outbound) shuttle	95																				95							
9	Dharma Retreat (inbound)overnight car	25											25																
10	Dharma Retreat (outbound)overnight car	25																											
	Inbound People	188			0	0	0	0	0	0	0	2	165	0	0	3	15	0	0	0	3	0	0	0	0	0	0	0	0
	Outbound People	163			0	0	0	0	0	0	0	0	2	0	15	0	3	0	15	0	0	3	125	0	0	0	0	0	0
	Total People	**351**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**167**	**0**	**15**	**3**	**18**	**0**	**15**	**0**	**3**	**3**	**125**	**0**	**0**	**0**	**0**	**0**	**0**

TABLE B: ESTIMATED NUMBER OF VISITOR TRIPS

Line No.	Description	No. of People	Start Shift Time	End Shift Time	ESTIMATED VEHICLE ARRIVAL/DEPARTURE BY HOUR OF THE DAY (INCLUDING OCCUPACY RATE OF 1.5 VISITORS PER VEHICLE)																								
					12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	12:00 AM
1	Residents (inbound)	15			0	0	0	0	0	0	0	1.3	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
2	Residents (outbound)	15			0	0	0	0	0	0	0	0	1.3	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0
3	Buddha Statues tour (inbound)	30	7am	3pm	0	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
4	Buddha Statues tour (outbound)	30	6pm	6am	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0
5	Dharma Retreat (inbound) car	30	9am	5pm	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Dharma Retreat (outbound) car	30	9am	5pm	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0
7	Dharma Retreat (inbound) shuttle	95			0	0	0	0	0	0	0	0	2.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Dharma Retreat (outbound) shuttle	95			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4	0	0	0	0	0	0
9	Dharma Retreat (inbound)overnight car	25			0	0	0	0	0	0	0	0	16.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Dharma Retreat (outbound)overnight car	25			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Inbound Trips	64.4			0	0	0	0	0	0	0	1.3	49.1	0	0	2	10	0	0	0	2	0	0	0	0	0	0	0	0
	Outbound Trips	47.7			0	0	0	0	0	0	0	0	1.3	0	10	0	2	0	10	0	0	2	22.4	0	0	0	0	0	0
	Total Trips	**112.1**			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1.3**	**50.4**	**0**	**10**	**2**	**12**	**0**	**10**	**0**	**2**	**2**	**22.4**	**0**	**0**	**0**	**0**	**0**	**0**
	Peak Hour Trips To Use (Rounded Up)				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**51**	**0**	**10**	**2**	**12**	**0**	**10**	**0**	**2**	**2**	**23**	**0**	**0**	**0**	**0**	**0**	**0**

Peak Hour Trips 51

Location: Crow Canyon Rd B/W Bollinger Canyon Rd & Bellina Canyon Rd
Date Range: 6/18/2019 - 6/24/2019
Site Code: 01

	Tuesday			Wednesday			Thursday			Friday			Saturday			Sunday			Monday			Mid-Week Average		
	6/18/2019			6/19/2019			6/20/2019			6/21/2019			6/22/2019			6/23/2019			6/24/2019					
Time	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total	EB	WB	Total
12:00 AM	31	19	50	37	27	64	29	32	61	40	43	83	45	46	91	29	54	83	38	29	67	32	26	58
1:00 AM	14	8	22	24	15	39	12	12	24	16	14	30	19	18	37	27	21	48	16	14	30	17	12	28
2:00 AM	14	16	30	14	15	29	12	17	29	14	24	38	14	22	36	12	15	27	12	8	20	13	16	29
3:00 AM	11	16	27	11	10	21	12	12	24	10	16	26	11	12	23	8	8	16	15	14	29	11	13	24
4:00 AM	44	72	116	51	86	137	38	87	125	35	81	116	32	20	52	14	15	29	44	62	106	44	82	126
5:00 AM	141	271	412	132	261	393	132	243	375	125	197	322	44	38	82	36	28	64	130	266	396	135	258	393
6:00 AM	358	418	776	353	385	738	362	391	753	339	316	655	119	82	201	72	59	131	342	367	709	358	398	756
7:00 AM	787	**482**	1,269	760	424	1,184	724	**470**	1,194	666	368	1,034	243	131	374	125	82	207	698	**425**	1,123	757	**459**	1,216
8:00 AM	**925**	425	**1,350**	**960**	450	**1,410**	**941**	431	**1,372**	**745**	**380**	**1,125**	368	198	566	195	151	346	**834**	408	**1,242**	**942**	435	**1,377**
9:00 AM	665	400	1,065	593	**536**	1,129	668	361	1,029	580	303	883	414	300	714	346	249	595	499	409	908	642	432	1,074
10:00 AM	372	326	698	419	461	880	357	324	681	398	276	674	401	310	711	349	271	620	349	300	649	383	370	753
11:00 AM	351	284	635	382	354	736	361	293	654	448	323	771	**506**	**353**	**859**	**379**	**317**	**696**	302	284	586	365	310	675
12:00 PM	340	313	653	388	350	738	379	347	726	490	336	826	520	**409**	929	**383**	328	711	393	317	710	369	337	706
1:00 PM	462	296	758	408	345	753	405	362	767	828	383	1,211	573	378	951	375	**344**	**719**	375	359	734	425	334	759
2:00 PM	662	389	1,051	659	400	1,059	721	395	1,116	803	417	1,220	647	390	1,037	352	316	668	565	396	961	681	395	1,075
3:00 PM	907	532	1,439	901	528	1,429	1,028	500	1,528	837	551	1,388	592	388	980	330	325	655	840	442	1,282	945	520	1,465
4:00 PM	977	666	1,643	**1,031**	718	1,749	1,003	773	1,776	938	710	1,648	730	378	1,108	347	307	654	**1,002**	611	1,613	**1,004**	719	1,723
5:00 PM	**1,039**	**887**	**1,926**	924	**937**	**1,861**	**1,029**	**949**	**1,978**	**1,069**	**731**	**1,800**	**769**	358	**1,127**	322	325	647	992	**833**	**1,825**	997	**924**	**1,922**
6:00 PM	764	522	1,286	998	508	1,506	921	537	1,458	842	421	1,263	418	331	749	243	291	534	686	471	1,157	894	522	1,417
7:00 PM	386	272	658	573	309	882	569	295	864	385	278	663	195	208	403	152	256	408	339	258	597	509	292	801
8:00 PM	221	236	457	235	223	458	237	214	451	231	235	466	186	217	403	154	186	340	165	201	366	231	224	455
9:00 PM	132	159	291	136	163	299	137	179	316	138	210	348	164	197	361	113	163	276	114	132	246	135	167	302
10:00 PM	82	89	171	76	111	187	102	119	221	96	120	216	100	130	230	80	90	170	61	60	121	87	106	193
11:00 PM	46	55	101	55	43	98	60	75	135	91	89	180	77	71	148	45	51	96	56	46	102	54	58	111
Total	9,731	7,153	16,884	10,120	7,659	17,779	10,239	7,418	17,657	10,164	6,822	16,986	7,187	4,985	12,172	4,488	4,252	8,740	8,867	6,712	15,579	10,030	7,410	17,440
Percent	58%	42%	-	57%	43%	-	58%	42%	-	60%	40%	-	59%	41%	-	51%	49%	-	57%	43%	-	58%	42%	-
AM Peak	08:00	07:00	08:00	08:00	09:00	08:00	08:00	07:00	08:00	08:00	08:00	08:00	11:00	11:00	11:00	11:00	11:00	11:00	08:00	07:00	08:00	08:00	07:00	08:00
Vol.	925	482	1,350	960	536	1,410	941	470	1,372	745	380	1,125	506	353	859	379	317	696	834	425	1,242	942	459	1,377
PM Peak	17:00	17:00	17:00	16:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	12:00	17:00	12:00	13:00	13:00	16:00	17:00	17:00	16:00	17:00	17:00
Vol.	1,039	887	1,926	1,031	937	1,861	1,029	949	1,978	1,069	731	1,800	769	409	1,127	383	344	719	1,002	833	1,825	1,004	924	1,922

1. Mid-week average includes data between Tuesday and Thursday.

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Left-Turn Lane Warrant

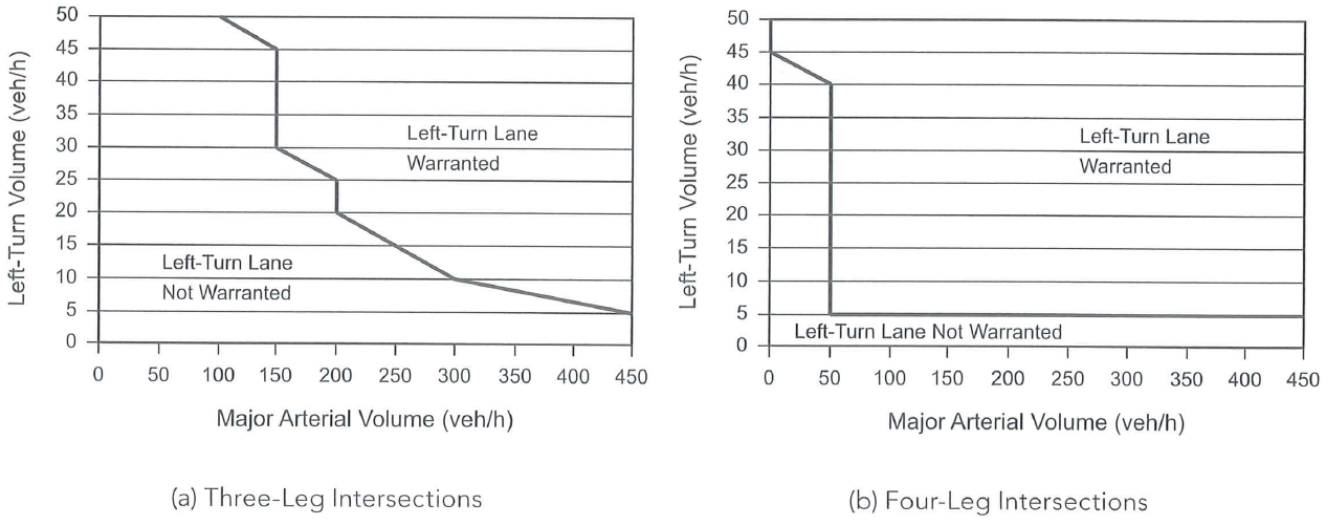

Figure 9-35. Suggested Left-Turn Lane Warrants Based on Results from Benefit–Cost Evaluations for Intersections on Arterials in Urban Areas (*16*)

AASHTO, 2018