CHAPTER 10.0

Traffic and Transportation

10.1 Introduction

This chapter evaluates the potential traffic impacts related to the Chiquita Canyon Landfill (CCL) Master Plan Revision (Proposed Project), which is located on the north side of State Route 126 (SR-126), west of Interstate 5 (I-5) in the Santa Clarita Valley area of Los Angeles County. This assessment is based on the Chiquita Canyon Landfill Master Plan Revision Traffic Analysis prepared by CH2M HILL in June 2014. The *CCL Master Plan Revision Traffic Analysis* is provided as Appendix G of this Draft Environmental Impact Report (DEIR).

The scope of the analysis is in accordance with direction provided by Los Angeles County Department of Public Works (LACDPW), Traffic and Lighting Division staff and satisfies the Traffic Impact requirements of the Congestion Management Program (CMP) for Los Angeles County. The analysis focuses on onsite circulation and access, as well as offsite traffic impacts, and addresses the Proposed Project impacts at area intersections. A vicinity map showing the location of the Proposed Project and surrounding major street system is provided in Figure 10-1.

10.2 Methodology

10.2.1 Study Area

This assessment includes documentation of existing traffic conditions, analysis of project buildout traffic conditions and identification of project-related impacts at the following intersections:

- Chiquito Canyon Road at SR-126
- CCL Entrance (existing) at SR-126
- Wolcott Way at SR-126
- Commerce Center Drive at SR-126
- I-5 southbound ramps at SR-126
- I-5 northbound ramps at SR-126
- Franklin Parkway at Commerce Center Drive
- Wolcott Way at Franklin Parkway (proposed CCL entrance)

The existing lane configurations of the study intersections are illustrated in Figure 10-2. Five scenarios were analyzed for the morning and evening peak hours and include:

- Existing Conditions
- Existing plus Growth (2015) Conditions without Project
- Existing plus Growth (2015) Conditions with Project
- Existing plus Growth (2015) plus Other Development Conditions without Project (Cumulative Conditions)
- Existing plus Growth (2015) plus Other Development Conditions with Project (Cumulative plus Project Conditions)

10.2.2 Analysis Methodology

Traffic analysis for the intersections was conducted using two different methods to accommodate the requirements of both the California Department of Transportation (Caltrans) and the County of Los Angeles. The Highway Capacity Manual (HCM) and Intersection Capacity Utilization (ICU) methodologies were used to analyze intersection operations.

Caltrans uses the HCM methodology for intersection analysis. The HCM methodology assesses level of service (LOS) based on average delay per vehicle. The delay is calculated using peak-hourly traffic volumes, peak-hour factors, number of lanes, type of operation (signalized or unsignalized), and other factors. The HCM

methodology was implemented using the Synchro software (Version 8). The HCM delay forecast translates to a LOS assessment, ranging from LOS A to LOS F using the delay ranges shown in Table 10-1.

TABLE 10-1
Highway Capacity Manual Based Level of Service and Delay Ranges

Average Delay (seconds per vehicle)		LOS
Signalized Intersections	Unsignalized Intersections	
< 10.0	< 10.0	A
> 10.0 to < 20.0	> 10.0 to < 15.0	B
> 20.0 to < 35.0	> 15.0 to < 25.0	C
> 35.0 to < 55.0	> 25.0 to < 35.0	D
> 55.0 to < 80.0	> 35.0 to < 50.0	E
> 80.0	> 50.0	F

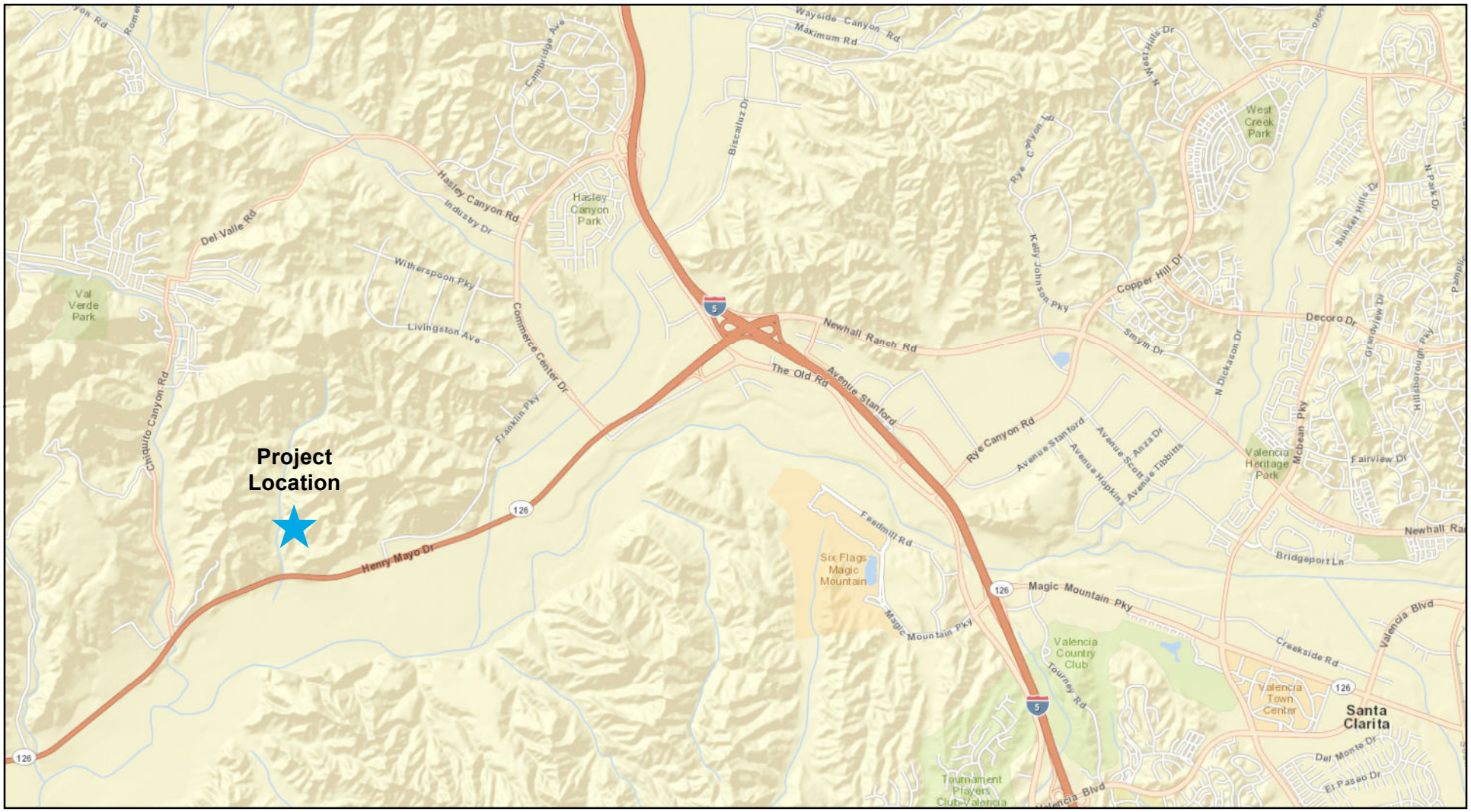
Notes:
> = greater than
< = less than
Source: Transportation Research Board, 2010

The ICU methodology provides a comparison of the number of vehicles actually passing through an intersection during a given hour to the theoretical hourly vehicular capacity of that intersection. A saturation flow rate of 1,600 vehicles per hour per lane for all through/turn lanes and 2,880 vehicles per hour per lane for all dual turn lanes was used in the ICU calculation, consistent with the guidance provided in the Los Angeles County CMP. The ICU calculation returns a volume-to-capacity (V/C) ratio that translates into a corresponding LOS. A description of each LOS and the corresponding V/C ratio is provided in Table 10-2.

TABLE 10-2
Intersection Capacity Utilization Level of Service Criteria

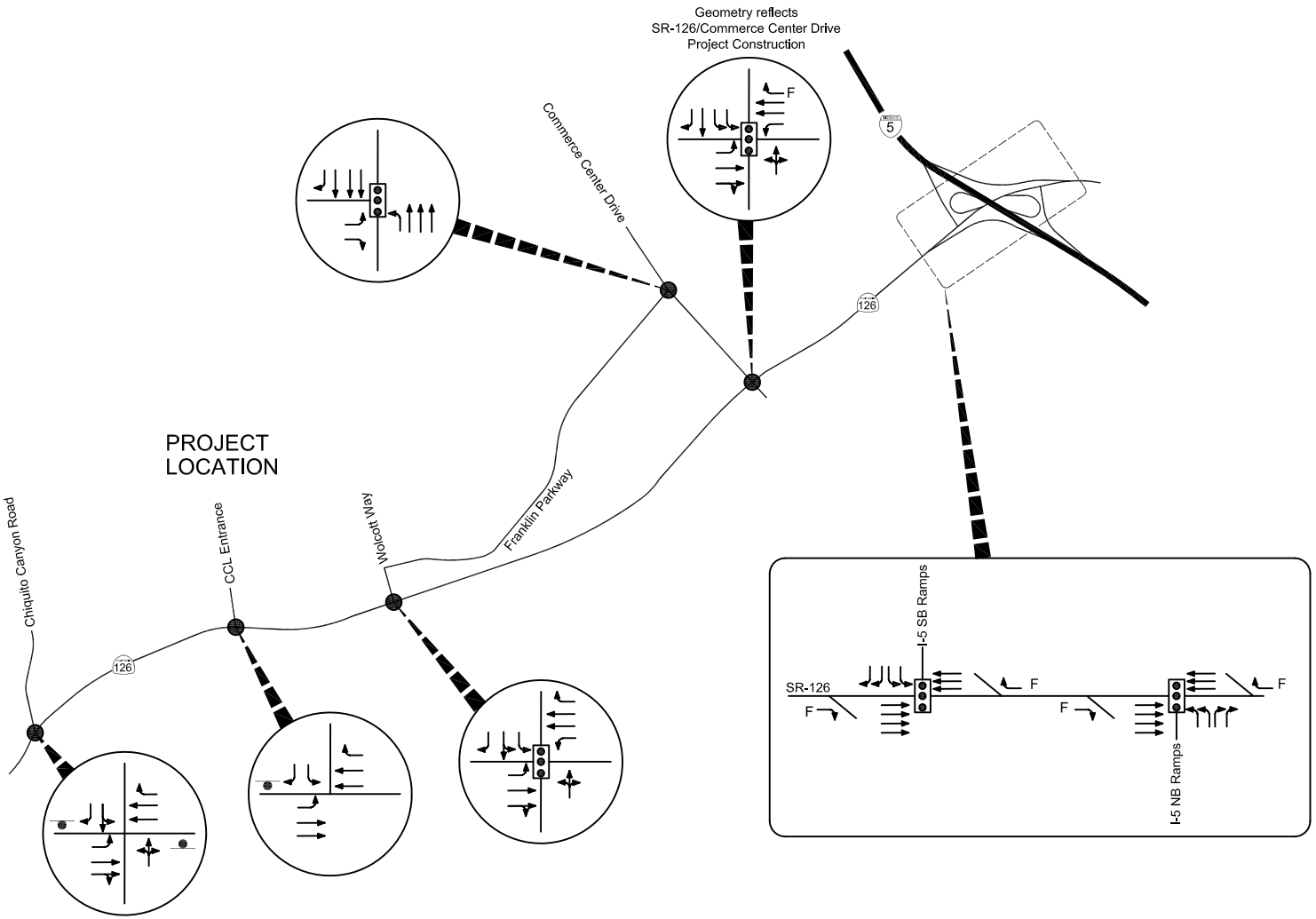
LOS	V/C Ratio	Definition
A	0.00 - 0.60	At LOS A, there are no cycles that are fully loaded, and few are even close to loaded. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turning movements are easily made, and nearly all drivers find freedom of operation.
B	>0.60 - 0.70	LOS B represents stable operation. An occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel somewhat restricted with platoons of vehicles.
C	>0.70 - 0.80	In LOS C stable operation continues. Full signal cycle loading is still intermittent, but more frequent. Occasionally drivers may have to wait through more than one red signal indication and backups may develop behind turning vehicles.
D	>0.80 – 0.90	LOS D encompasses a zone of increasing restriction, approaching instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	>0.90 – 1.00	LOS E represents the most vehicles that any particular intersection approach can accommodate. At capacity (V/C = 1.00) there may be long queues of vehicles waiting upstream of the intersection, and delays may be great (up to several signal cycles).
F	> 1.00	LOS F represents jammed conditions. Backups from location downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration; hence, volumes carried are not predictable. V/C values are highly variable, because full utilization of the approach may be prevented by outside conditions.

Source: Los Angeles County Metropolitan Transportation Authority, 2010



Basemap Source: ESRI

FIGURE 10-1
Vicinity Map
Chiquita Canyon Landfill
Master Plan Revision



LEGEND

F FREE MOVEMENT

STOP SIGN

SIGNALIZED INTERSECTION

N

Not to scale

FIGURE 10-2
Existing Intersection Lane Configurations
Chiquita Canyon Landfill Master Plan Revision

For comparison purposes, both the HCM and ICU analysis values are reported in the LOS summary tables. However, all impacts are assessed using the ICU methodology only. The HCM analysis is provided for Caltrans review purposes because SR-126 is a Caltrans facility.

10.3 Regulatory Setting

10.3.1 Regional and Local Regulations and Standards

10.3.1.1 Los Angeles County Congestion Management Program

The Los Angeles County CMP was established in 1992. The 1992 CMP forged new ground in linking transportation, land use, and air quality decisions for the most populous and one of the most complex urban areas in the country. The 2010 CMP is the eighth CMP adopted for Los Angeles County since the requirement became effective with the passage of Proposition 111 in 1990. The hallmark of the CMP program is that it is intended to address the impact of local growth on the regional transportation system. Compliance with the CMP requirements ensures a local jurisdiction's eligibility to compete for state gas tax funds for local transportation projects. SR-126 (also known as Henry Mayo Drive) is a CMP Highway and Roadway System arterial in the Proposed Project study area.

The Los Angeles County CMP states that "a CMP Transportation Impact Analysis (TIA) is required for all projects required to prepare an Environmental Impact Report (EIR) based on local determination." Therefore, a CMP-level analysis is required for the Proposed Project. The traffic analysis documented in this DEIR is consistent with the Guidelines for CMP Transportation Impact Analysis in Appendix D of the Los Angeles County CMP.

10.4 Regional and Local Setting

CCL is located in the northwestern portion of unincorporated Los Angeles County and is approximately 3 miles west of the I-5 and SR-126 interchange. CCL is also approximately 7 miles northwest of the city of Santa Clarita, 33 miles northwest of Downtown Los Angeles, and 18 miles east of the city of Fillmore.

10.4.1 Local Road Network

Highways and major arterial streets in the vicinity of the project site are shown in Figure 10-1 and described below. The roadway characteristics and intersection geometrics are shown in Figure 10-2.

I-5, in the vicinity of CCL, is an eight-lane north-south divided highway connecting Los Angeles, the San Fernando Valley, and the Santa Clarita Valley. A full access interchange is provided at the SR-126 and I-5 interchange, east of CCL.

SR-126, also called Henry Mayo Drive, in the vicinity of CCL, is a four-lane, undivided highway that serves east-west travel through the region. East of CCL, SR-126 provides full access to I-5. West of the landfill, SR-126 continues into Ventura County. The speed limit on SR-126, in the vicinity of the landfill, is posted at 60 miles per hour (mph), and 55 mph for autos with trailers and trucks. There is a 12-foot shoulder on both sides of SR-126 within the study area. Access to CCL is currently provided via the access road intersecting SR-126 between Chiquito Canyon Road and Wolcott Way. An existing three-leg intersection with a stop sign controls the southbound approach from the landfill access road. This road provides access only for the landfill. As part of the Proposed Project, the existing landfill entrance will be closed and a new entrance will be constructed on the corner of Wolcott Way and Franklin Parkway. Figure 10-3 illustrates the location of the existing entrance and proposed entrance to CCL. Figure 10-4 illustrates a detailed plan of the proposed entrance.

Chiquito Canyon Road is a north-south roadway west of CCL. It extends north of SR-126 with one lane in each direction. Currently there is no public access south of SR-126. The posted speed limit on Chiquito Canyon Road ranges from 30 to 35 mph.

Landfill Access Road intersects SR-126 between Chiquito Canyon Road and Wolcott Way. It is a two-lane roadway that extends north from SR-126 and provides access to CCL.

Wolcott Way is a local street east of the current access road to CCL. North of SR-126, Wolcott Way has one lane in each direction. The posted speed limit is 35 mph. A new entrance is proposed on the corner of

Wolcott Way and Franklin Parkway. Figures 10-3 and 10-4 illustrate the location and configuration of the proposed entrance.

Commerce Center Drive is a major north-south roadway with a large industrial development north of SR-126. North of SR-126, Commerce Center Drive has three lanes in each direction and a posted speed limit ranging from 40 to 45 mph. The road terminates 200 feet south of SR-126.

10.4.2 Existing Conditions

Morning and evening peak-hour turning movement traffic counts were conducted at the study intersections in March 2013 and are depicted in Figure 10-5. Copies of the traffic count data sheets are provided in Appendix G.

Existing morning and evening peak-hour operating conditions were evaluated using the HCM and ICU methodologies. The results of the existing conditions analysis are summarized in Table 10-3. Copies of intersection analysis worksheets are provided in Appendix G.

TABLE 10-3
Summary of Intersection Analysis – Existing Conditions

			Existing Conditions							
			A.M. Peak				P.M. Peak			
	Intersection	Control	Delay (sec/veh)	LOS	ICU	LOS	Delay (sec/veh)	LOS	ICU	LOS
1	Chiquito Canyon Road at SR-126	Unsignalized[a]	40.1	E	0.386	A	53.0	F	0.414	A
2	Chiquita Canyon Landfill Entrance at SR-126	Unsignalized[a]	23.5	C	0.355	A	38.9	E	0.421	A
3	Wolcott Way at SR-126	Signalized	13.5	B	0.357	A	26.6	C	0.415	A
4	Commerce Center Drive at SR-126	Signalized	26.4	C	0.490	A	66.7	E	0.759	C
5	I-5 Southbound Ramps at SR-126	Signalized	18.6	B	0.738	C	11.2	B	0.495	A
6	I-5 Northbound Ramps at SR-126	Signalized	24.3	C	0.532	A	25.0	C	0.425	A
7	Franklin Parkway at Commerce Center Drive	Signalized	8.8	A	0.368	A	18.2	B	0.409	A
8	Wolcott Way at Franklin Parkway	-	Intersection does not exist currently							

[a] HCM results (delay) reported for worst stop controlled approach.

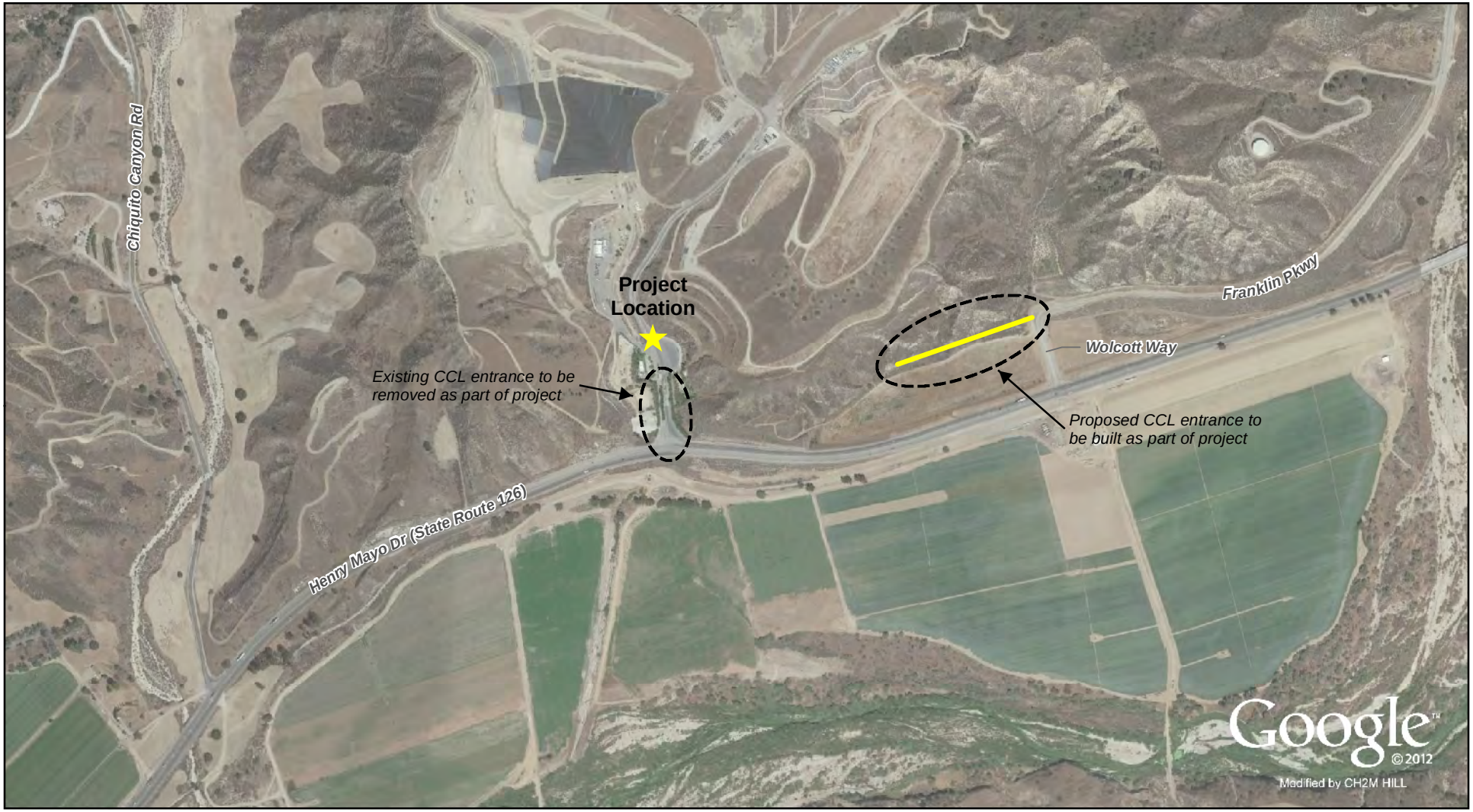
Note:

sec/veh = seconds per vehicle

Table 10-3 shows that all of the study intersections are currently operating at LOS C or better using the ICU methodology. Using the HCM methodology, the following intersections currently operate at LOS E or worse:

- Chiquito Canyon Road at SR-126 (two-way stop controlled, LOS E in the a.m., LOS F in the p.m.)
- Chiquita Canyon Landfill Entrance at SR-126 (two-way stop controlled, LOS E in the p.m.)
- Commerce Center Drive at SR-126 (signalized, LOS E in the p.m.)

Peak-hour volume traffic signal warrants indicate that signals are not warranted at Chiquito Canyon Road/ SR-126 and Chiquita Canyon Landfill Entrance/SR-126 under existing conditions. Copies of the peak-hour volume warrant worksheets are provided in Appendix G.

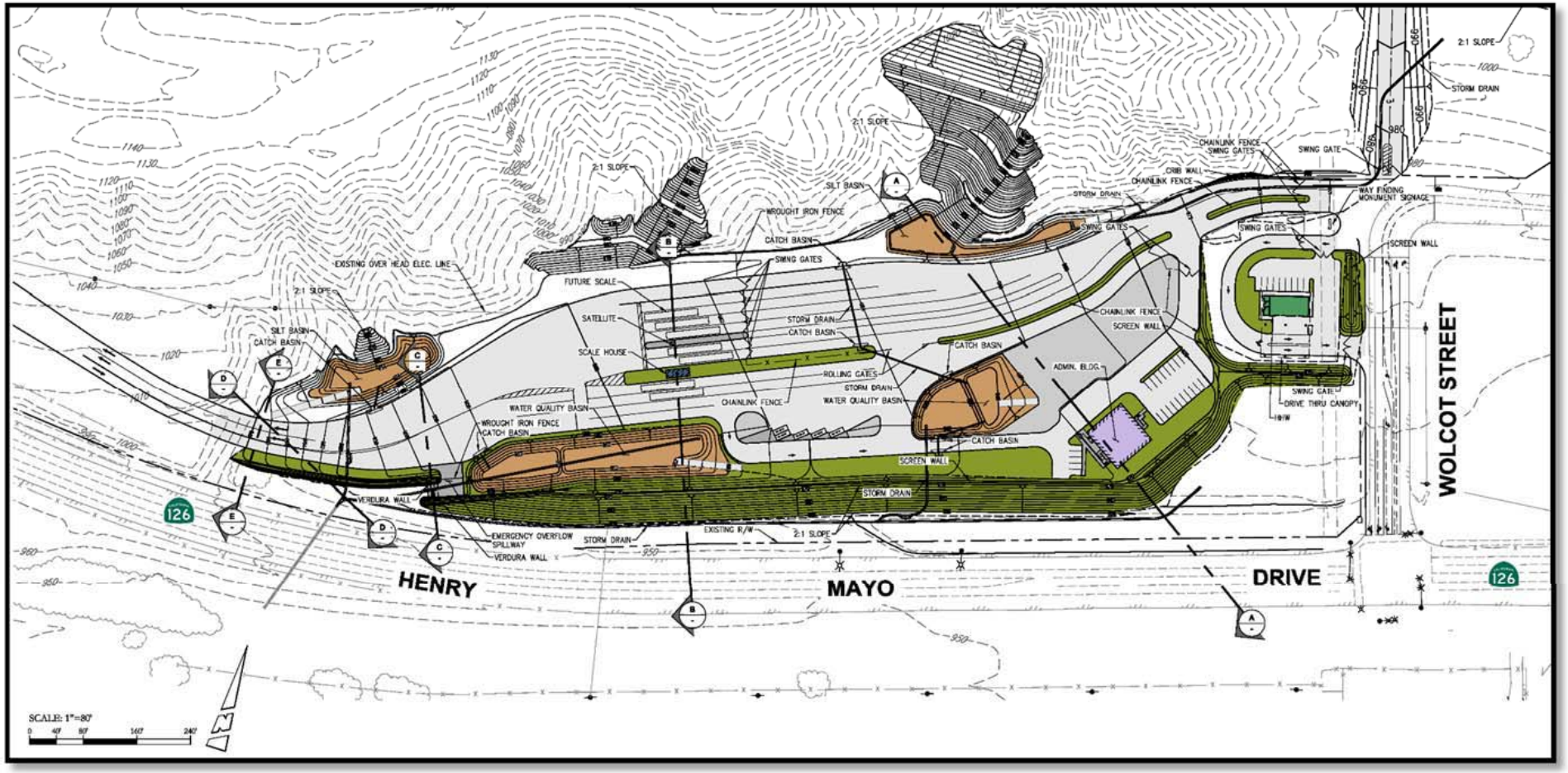


N

0 500 1,000

Feet

FIGURE 10-3
Existing and Proposed CCL Entrance
Chiquita Canyon Landfill
Master Plan Revision



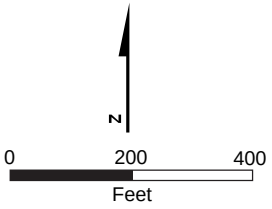


FIGURE 10-4
Proposed CCL Entrance Plan
Chiquita Canyon Landfill
Master Plan Revision

Source: J.R. Miller & Associates, 2014

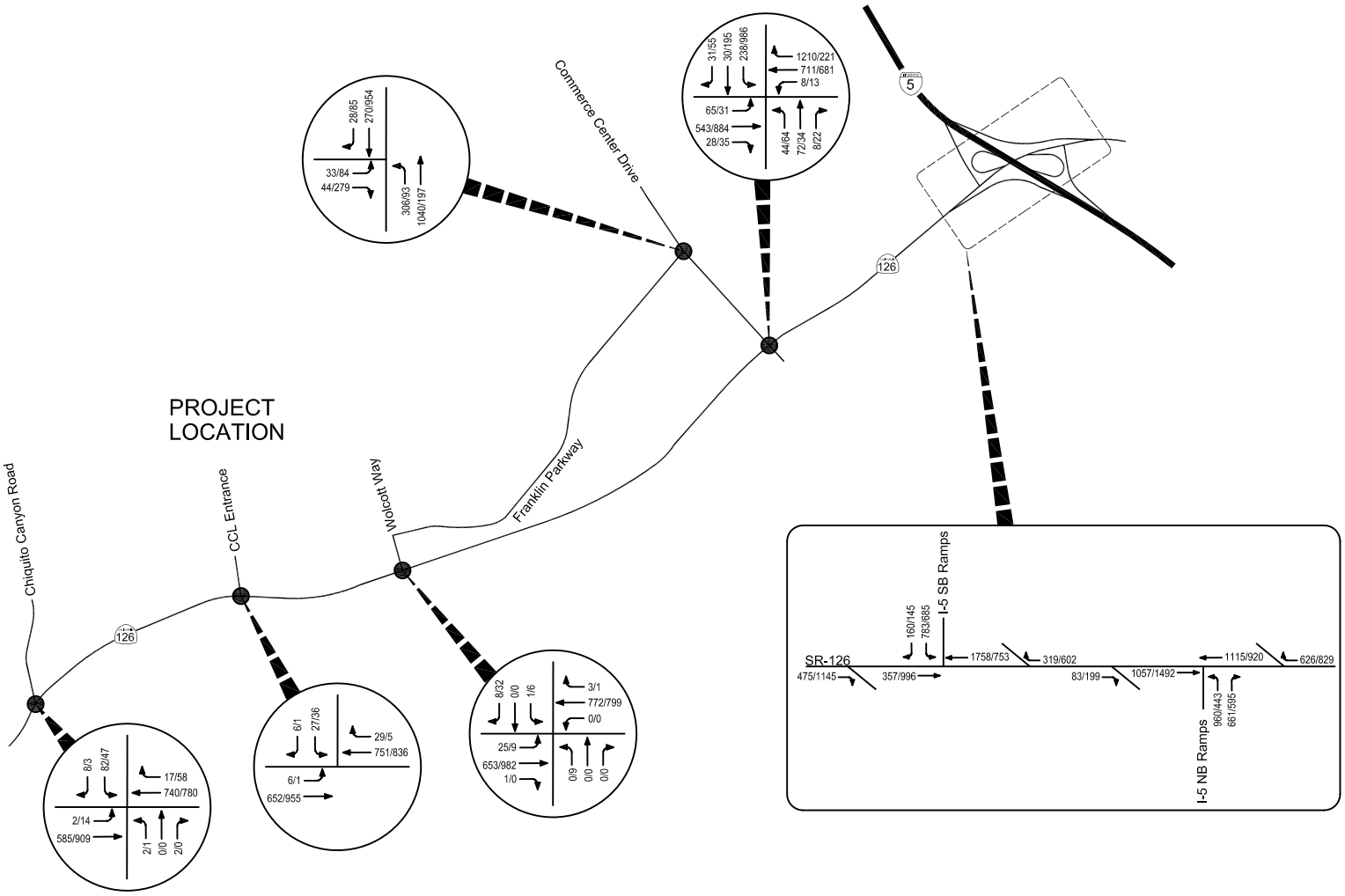


FIGURE 10-5
Existing Peak-Hour Volumes
Chiquita Canyon Landfill
Master Plan Revision

10.4.3 Existing plus Growth Conditions

Future peak-hour traffic projections for the study intersections were developed for the buildout year of 2015. An annual ambient growth rate of 2.75 percent per year was applied to the existing (2013) traffic volumes. The annual growth rate is based upon direction received from LACDPW, Traffic and Lighting Division staff as part of the preparation of the *CCL Master Plan Revision Traffic Analysis* (Appendix G). The 2015 buildout year without project (Existing plus Growth) volumes at each of the study intersections are shown in Figure 10-6. The results of the Existing plus Growth condition analysis are summarized in Table 10-4. Morning and evening peak-hour operating conditions were evaluated using the HCM and ICU methodologies. Copies of intersection analysis worksheets are provided in Appendix G.

TABLE 10-4
Summary of Intersection Analysis – Existing plus Growth Conditions

			Existing plus Growth							
			A.M. Peak				P.M. Peak			
	Intersection	Control	Delay (sec/veh)	LOS	ICU	LOS	Delay (sec/veh)	LOS	ICU	LOS
1	Chiquito Canyon Road at SR-126	Unsignalized[a]	49.7	E	0.402	A	65.9	F	0.432	A
2	Chiquita Canyon Landfill Entrance at SR-126	Unsignalized[a]	25.7	D	0.369	A	45.5	E	0.439	A
3	Wolcott Way at SR-126	Signalized	14.2	B	0.371	A	29.2	C	0.423	A
4	Commerce Center Drive at SR-126	Signalized	27.0	C	0.546	A	71.0	E	0.852	D
5	I-5 Southbound Ramps at SR-126	Signalized	20.6	C	0.773	C	11.8	B	0.516	A
6	I-5 Northbound Ramps at SR-126	Signalized	26.3	C	0.556	A	26.7	C	0.443	A
7	Franklin Parkway at Commerce Center Drive	Signalized	9.1	A	0.383	A	19.2	B	0.426	A
8	Wolcott Way at Franklin Parkway	-	Intersection does not exist without project							

[a] HCM results (delay) reported for worst stop controlled approach.

Table 10-4 shows that all of the study intersections will operate at LOS D or better using the ICU methodology in the Existing plus Growth conditions. Using the HCM methodology, the following intersections will operate at LOS E or worse (same as existing conditions):

- Chiquito Canyon Road at SR-126 (two-way stop controlled, LOS E in the a.m., LOS F in the p.m.)
- Chiquita Canyon Landfill Entrance at SR-126 (two-way stop controlled, LOS E in the p.m.)
- Commerce Center Drive at SR-126 (signalized, LOS E in the p.m.)

Peak-hour volume traffic signal warrants indicate that signals are not warranted at Chiquito Canyon Road/ SR-126 and Chiquita Canyon Landfill Entrance/SR-126 under Existing plus Growth conditions. Copies of the peak-hour volume warrant worksheets are provided in Appendix G.

10.5 Potential Impacts

Traffic effects of the Proposed Project during construction and operational phases were evaluated to determine the potential impacts and need for mitigation.

10.5.1 Standards of Significance

Based on *California Environmental Quality Act* (*CEQA*) *Guidelines*, a significant traffic impact would occur, if the project would:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

- Exceed, either individually or cumulatively, a LOS standard established by the county congestion management agency for designated roads or highways.
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incomplete uses (e.g., farm equipment).
- Result in inadequate emergency access.
- Result in inadequate parking capacity.
- Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Based on the County of Los Angeles Department of Public Works Traffic Impact Analysis Guidelines, a significant impact occurs if the project-related increase in the V/C ratio equals or exceeds the threshold shown in Table 10-5.

TABLE 10-5
Significant Impact Thresholds for Intersections

Preproject Conditions		
LOS	**V/C**	**Project V/C Increase**
C	0.71 to 0.80	0.04 or more
D	0.81 to 0.90	0.02 or more
E/F	0.91 or more	0.01 or more

Source: Los Angeles County Department of Public Works

10.5.2 Proposed Project

The Proposed Project includes the following elements: relocated entrance and support facilities; better utilization of the landfill's potential disposal capacity through a lateral extension of the existing waste footprint and increased maximum elevation; increased daily disposal limits; acceptance of all nonhazardous wastes acceptable at a Class III solid waste disposal landfill; continued operation of the landfill; new design features; environmental monitoring; and ancillary composting operation. Parking for the Proposed Project will be provided entirely onsite. The following section describes the estimated project trip generation and distribution and evaluates the potential impacts of the Proposed Project.

10.5.2.1 Project Trip Generation

In addition to traffic at CCL that results from incoming waste, there are several other sources of inbound and outbound traffic at CCL. A wide variety of material that is diverted from the waste stream is accepted at CCL for other uses, including alternative daily cover, road base, compost, and erosion control material. Material from CCL, including clean soil, compost products, and recycled materials, may also be trucked from the site to other locations. Additionally, periodic cell construction occurs at CCL, during which time additional traffic related to construction occurs. Table 10-6 details the potential maximum daily traffic volume at CCL under existing (baseline) conditions. Table 10-7 details the potential maximum daily traffic volume at CCL under Proposed Project conditions. Table 10-8 details the potential maximum daily net new trips of the Proposed Project (i.e., Proposed Project minus baseline conditions).

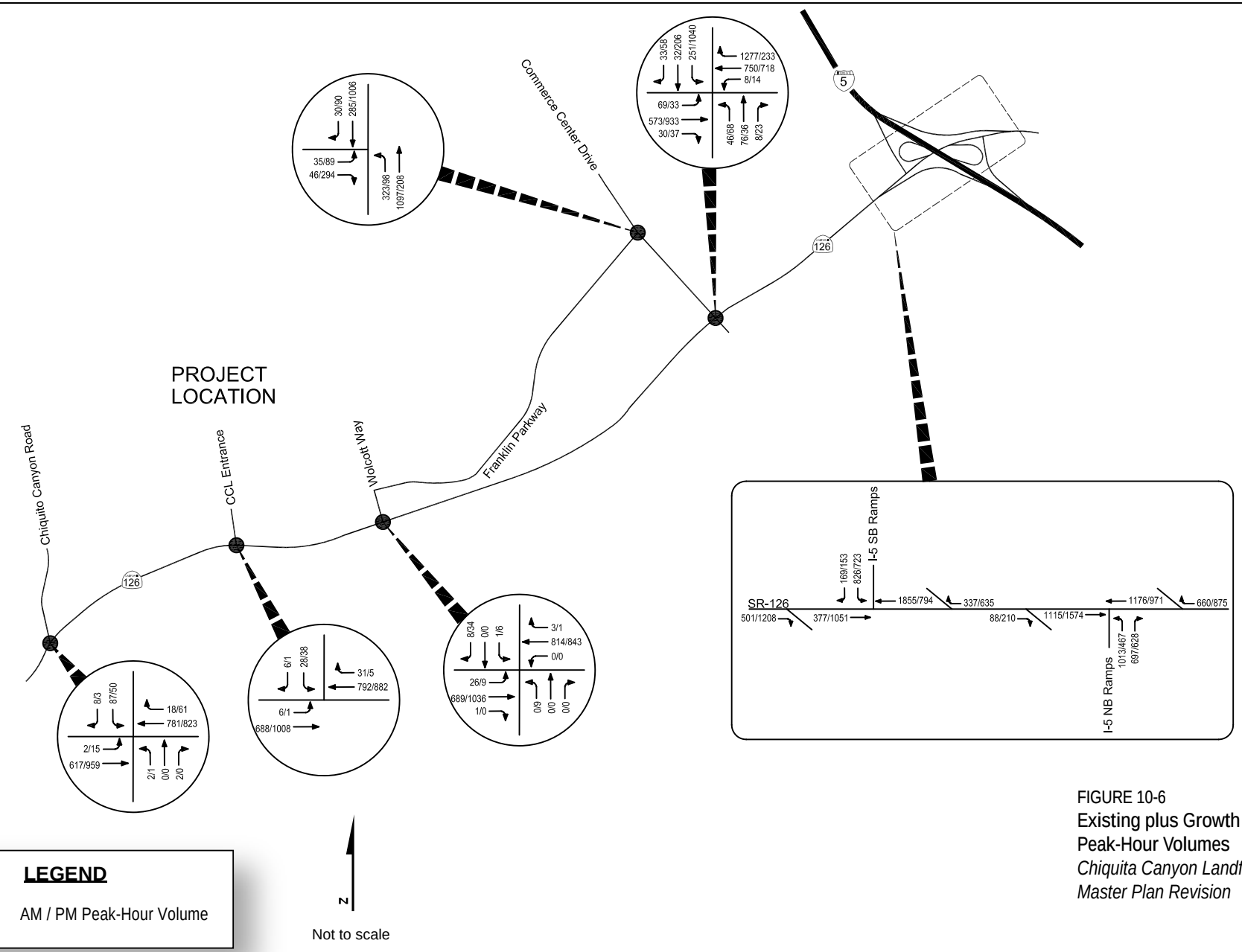


FIGURE 10-6
Existing plus Growth Peak-Hour Volumes
Chiquita Canyon Landfill Master Plan Revision

TABLE 10-6
Summary of Baseline Peak Potential Daily Inbound and Outbound Traffic

Traffic Source	Number of Vehicles Peak Potential Daily[a,b]	Number of Vehicles Peak Potential Daily - PCE	Number of Trip Ends Peak Potential Daily - PCE
Inbound			
Trash (Disposal)[c]			
Transfer	273	546	1,092
Route	300	600	1,200
Roll-offs	460	920	1,840
Self Haul	500	500	1,000
Other Materials (Beneficial Reuse)			
Shredded Curbside Green Waste	40	80	160
Clean Soil	200	400	800
Contaminated Soil[d]			
Large Trucks	300	600	1,200
10-Wheelers	60	120	240
Protective Cover			
TASW	200	400	800
MRF Fines	40	80	160
Tire Shred	15	30	60
C&D Fines	25	50	100
Road Base			
Concrete	50	100	200
Asphalt	50	100	200
Processed C&D Material	30	60	120
Composting[e]	55	110	220
Outbound			
Clean Soil	100	200	400
Compost Products	8	16	32
Other	25	50	100
Special Projects[f]			
Cell Construction			
Mobilize/Demobilize Traffic	20	20	40
Contractor Employees	80	80	160
Employees			
Landfill – Permanent	34	34	68
Landfill – Temporary	25	25	50
LFGTE Plant	2	2	4
Transfer Drivers	4	4	8
Total	**2,896**	**5,127**	**10,254**

[a] These numbers are one-way trips and based on 5 days per week.
[b] The maximum number of trash vehicles in each category does not happen simultaneously. The daily maximum tonnage is still 6,000 tons per day.
[c] Regardless of actual vehicle mix, incoming waste tonnage would not exceed 6,000 tons per day per existing Conditional Use Permit (CUP) condition 9e.
[d] Contaminated soils may also be disposed and not put to beneficial reuse.
[e] The existing CUP allows for operation of up to a 560-tons-per-day composting facility for windrow or in-vessel technology composting operation.
[f] These projects occur periodically. Typically once every 2 to 3 years.
Notes:
C&D = construction and demolition
LFGTE = landfill gas-to-energy
MRF = Material Recovery Facility
PCE = passenger car equivalent
TASW = treated auto shredder waste

TABLE 10-7
Summary of Proposed Peak Potential Daily Inbound and Outbound Traffic

Traffic Source	Number of Vehicles Peak Potential Daily[a,b]	Number of Vehicles Peak Potential Daily - PCE	Number of Trip Ends Peak Potential Daily - PCE
Inbound			
Trash (Disposal)[c]			
Transfer	545	1,090	2,180
Route	600	1,200	2,400
Roll-offs	460	920	1,840
Self Haul	500	500	1,000
Other Materials (Beneficial Reuse)			
Shredded Curbside Green Waste	40	80	160
Clean Soil	200	400	800
Contaminated Soil[d]			
Large Trucks	300	600	1200
10-Wheelers	60	120	240
Protective Cover			
TASW	200	400	800
MRF Fines	40	80	160
Tire Shred	15	30	60
C&D Fines	25	50	100
Road Base			
Concrete	50	100	200
Asphalt	50	100	200
Processed C&D Material	30	60	120
Composting[e]	55	110	220
Outbound			
Clean Soil	100	200	400
Compost Products	8	16	32
Other	25	50	100
Special Projects[f]			
Cell Construction			
Mobilize/Demobilize Traffic	20	20	40
Contractor Employees	80	80	160
Employees			
Landfill – Permanent	55	55	110
Landfill – Temporary	25	25	50
LFGTE Plant	3	3	6
Transfer Drivers	4	4	8
Total	**3,490**	**6,293**	**12,586**

[a] These numbers are one-way trips and based on 5 days per week.
[b] The maximum number of trash vehicles in each category does not happen simultaneously. The daily maximum tonnage is still 12,000 tons per day.
[c] Regardless of actual vehicle mix, incoming waste tonnage would not exceed 12,000 tons per day.
[d] Contaminated soils may also be disposed and not put to beneficial reuse.
[e] The existing CUP allows for operation of up to a 560-tons-per-day composting facility for windrow or in-vessel technology composting operation.
[f] These projects occur periodically. Typically once every 2 to 3 years.

TABLE 10-8
Summary of Proposed Net New Peak Potential Daily Inbound and Outbound Traffic

Traffic Source	Number of Vehicles Peak Potential Daily[a,b]	Number of Vehicles Peak Potential Daily - PCE	Number of Trip Ends Peak Potential Daily - PCE
Inbound			
Trash (Disposal)[c]			
Transfer	272	544	1,088
Route	300	600	1,200
Roll-offs	0	0	0
Self Haul	0	0	0
Other Materials (Beneficial Reuse)			
Shredded Curbside Green Waste	0	0	0
Clean Soil	0	0	0
Contaminated Soil[d]			
Large Trucks	0	0	0
10-Wheelers	0	0	0
Protective Cover			
TASW	0	0	0
MRF Fines	0	0	0
Tire Shred	0	0	0
C&D Fines	0	0	0
Road Base			
Concrete	0	0	0
Asphalt	0	0	0
Processed C&D Material	0	0	0
Composting[e]	0	0	0
Outbound			
Clean Soil	0	0	0
Compost Products	0	0	0
Other	0	0	0
Special Projects[f]			
Cell Construction			
Mobilize/Demobilize Traffic	0	0	0
Contractor Employees	0	0	0
Employees			
Landfill – Permanent	21	21	42
Landfill – Temporary	0	0	0
LFGTE Plant	1	1	2
Transfer Drivers	0	0	0
Total	**594**	**1,166**	**2,332**

[a] These numbers are one-way trips and based on 5 days per week.
[b] The maximum number of trash vehicles in each category does not happen simultaneously. The daily maximum tonnage is still 12,000 tons per day.
[c] Regardless of actual vehicle mix, incoming waste tonnage would not exceed 12,000 tons per day.
[d] Contaminated soils may also be disposed and not put to beneficial reuse.
[e] The existing CUP allows for operation of up to a 560-tons-per-day composting facility for windrow or in-vessel technology composting operation.
[f] These projects occur periodically. Typically once every 2 to 3 years.

Tables 10-6 through 10-8 are based on historical records for different vehicle and material types and represent a typical day of CCL operations. Also, Tables 10-6 through 10-8 summarize the project trips in passenger car equivalents. A passenger car equivalent factor of 2.0 was used to convert truck trips to passenger car equivalents. Based on Table 10-8, the Proposed Project is estimated to generate 2,332 net new trips.

Because these values were determined on a daily basis, it was necessary to convert the data into peak-hour trips. Peak-hour project trips for a.m. and p.m. (net new trips) were developed to reflect the peak of the surrounding road network (1 hour between 7 a.m. and 9 a.m. and 1 hour between 4 p.m. and 6 p.m.). Peak-hour project trips were developed with historical time-of-day gate receipt data collected by CCL. Table 10-9 summarizes time-of-day vehicle count information for a typical weekday at CCL in April 2013. Based on the historical data presented in Table 10-9, approximately 6.4 percent of the net new trips for the Proposed Project will occur in the a.m. peak hour (8 a.m. to 9 a.m.), and 6.5 percent will occur in the p.m. peak hour (4 p.m. to 5 p.m.). The majority of the net new trips will occur outside the peak hours of the surrounding roadway system.

TABLE 10-9
Chiquita Canyon Landfill Time-of-Day Vehicle Distribution Based on Historical Gate Receipts

Time of Day	Inbound Vehicles	Outbound Vehicles
12:00 a.m. to 1:00 a.m.	3	3
1:00 a.m. to 2:00 a.m.	2	2
2:00 a.m. to 3:00 a.m.	5	5
3:00 a.m. to 4:00 a.m.	7	7
4:00 a.m. to 5:00 a.m.	21	21
5:00 a.m. to 6:00 a.m.	21	21
6:00 a.m. to 7:00 a.m.	19	19
7:00 a.m. to 8:00 a.m.	27	27
8:00 a.m. to 9:00 a.m.	30	30
9:00 a.m. to 10:00 a.m.	41	41
10:00 a.m. to 11:00 a.m.	57	57
11:00 a.m. to 12:00 p.m.	47	47
12:00 p.m. to 1:00 p.m.	34	34
1:00 p.m. to 2:00 p.m.	32	32
2:00 p.m. to 3:00 p.m.	38	38
3:00 p.m. to 4:00 p.m.	36	36
4:00 p.m. to 5:00 p.m.	31	31
5:00 p.m. to 6:00 p.m.	0	0
6:00 p.m. to 7:00 p.m.	0	0
7:00 p.m. to 8:00 p.m.	0	0
8:00 p.m. to 9:00 p.m.	0	0
9:00 p.m. to 10:00 p.m.	0	0
10:00 p.m. to 11:00 p.m.	11	11
11:00 p.m. to 12:00 a.m.	10	10
Daily Total	**472**	**472**

Note:
Data based on 3-day weekday average collected in April 2013. Data represents actual vehicles entering the site (not PCEs).

10.5.2.2 Project Trip Distribution and Assignment

The historical gate receipt information for CCL, which also showed the origin and destination of incoming and outgoing trucks, was used to determine the project trip distribution for the Proposed Project. The Proposed Project trip distribution is shown in Figure 10-7. Based on the trip distribution patterns, the Proposed Project trips (net new trips) that will be added to the street system were calculated and are shown in Figure 10-8. The Proposed Project will remove the existing CCL entrance and construct a new entrance on the corner of Wolcott Way and Franklin Parkway. Therefore, there will be a change in traffic patterns at the intersection of SR-126 and Wolcott Way because all CCL trips (existing and net new trips) will access the site via Wolcott Way. It is assumed that the new entrance will operate as an all-way stop controlled intersection at Wolcott Way and Franklin Parkway. These changes are noted in Figure 10-8. Additional discussion and analysis of the new entrance is provided in Section 10.5.2.5.

10.5.2.3 Existing plus Growth plus Project Conditions

Project traffic volumes were added to the 2015 buildout year conditions (Existing plus Growth) to assess potential traffic impacts. The resulting Existing plus Growth plus Project traffic volumes are shown in Figure 10-9. The study intersections were re-analyzed with the traffic volumes to determine the Proposed Project's impact on peak-hour intersection operations. Table 10-10 is a summary of Existing plus Growth conditions with and without the project. The table also indicates whether or not the Proposed Project has a significant impact at any of the study intersections. Copies of intersection analysis worksheets are provided in Appendix G. Table 10-10 shows that all study intersections will operate at LOS D or better using the ICU methodology in Existing plus Growth plus Project conditions. Using the HCM methodology, the following intersections will operate at LOS E or worse:

- Chiquito Canyon Road at SR-126 (two-way stop controlled, LOS F in the a.m. and in the p.m.)
- Commerce Center Drive at SR-126 (signalized, LOS E in the p.m.)

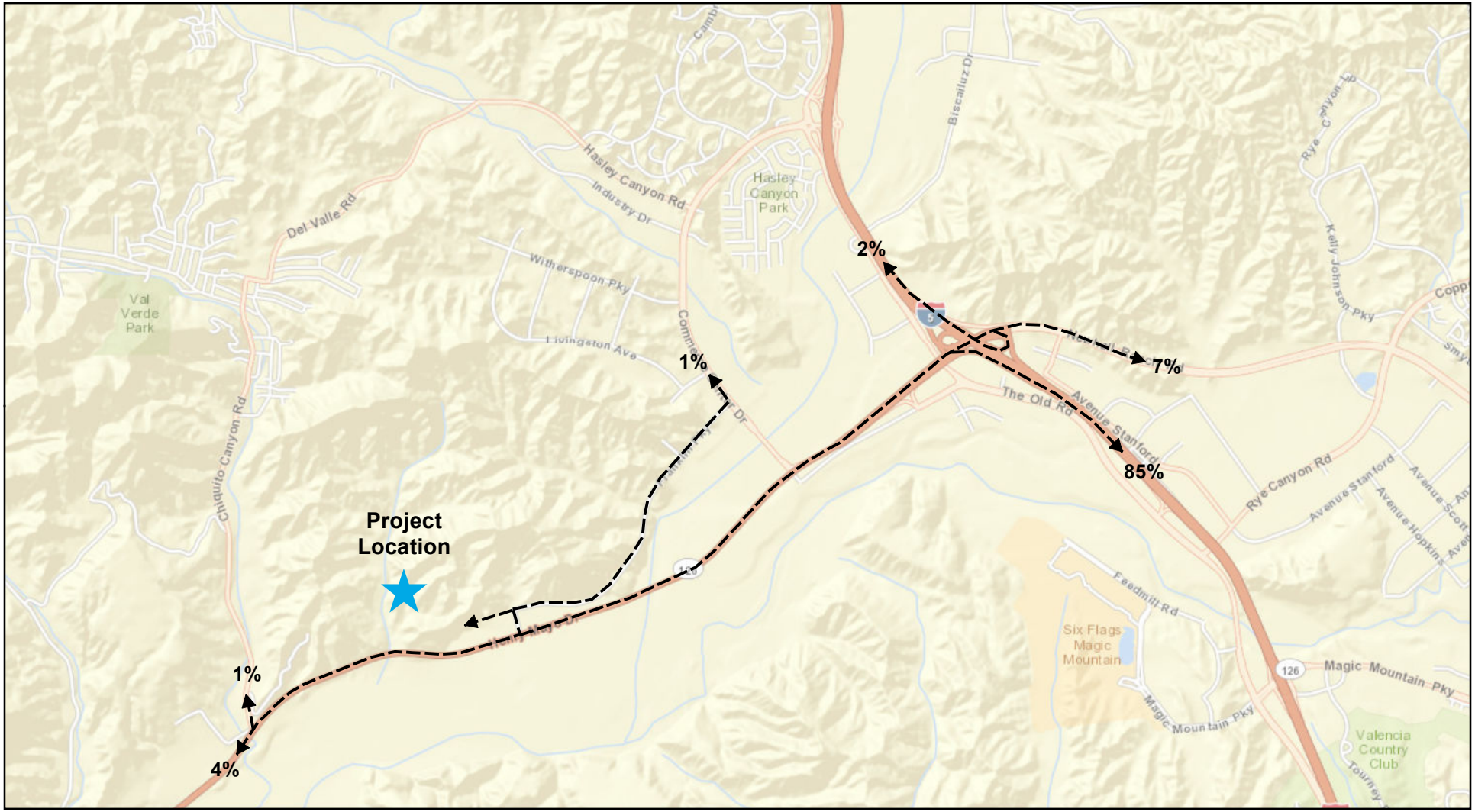
The Proposed Project will have a temporary significant impact at the intersection of Commerce Center Drive and SR-126 based on the Los Angeles County CMP guidelines. However, the intersection of Commerce Center Drive and SR-126 will still be under construction in 2015 as part of the Commerce Center Drive/SR-126 improvement project. The Commerce Center Drive/SR-126 improvement project is scheduled to be complete in 2016. Upon completion, the planned improvements at this intersection (interchange) will return operations to LOS D or better in both the morning and evening peak hours. Therefore, no mitigation is required of the CCL project since mitigation measures during construction conditions would interfere with the planned staging of the Commerce Center Drive/SR-126 improvement project.

Peak-hour volume traffic signal warrants indicate that signals are not warranted at Chiquito Canyon Road/ SR-126 under Existing plus Growth plus Project conditions. Copies of the peak-hour volume warrant worksheets are provided in Appendix G.

10.5.2.4 I-5 Freeway Ramp Queuing Analysis

Queue lengths at the northbound and southbound I-5 off-ramps were examined to evaluate whether or not adequate storage is available to accommodate peak-hour traffic with the Proposed Project. Table 10-11 reports the available I-5 northbound and southbound off-ramp storage at SR-126 and the anticipated queue lengths for the Existing conditions, Existing plus Growth conditions, and the Existing plus Growth plus Project conditions.

The queue lengths reported in Table 10-11 represent the 95th percentile queue length as calculated in Synchro. The worse peak-hour queue length is reported.



Basemap Source: ESRI

LEGEND

XX% Project Distribution (to/from distribution assumed to be identical)

FIGURE 10-7
Proposed Project Trip Distribution
Chiquita Canyon Landfill
Master Plan Revision

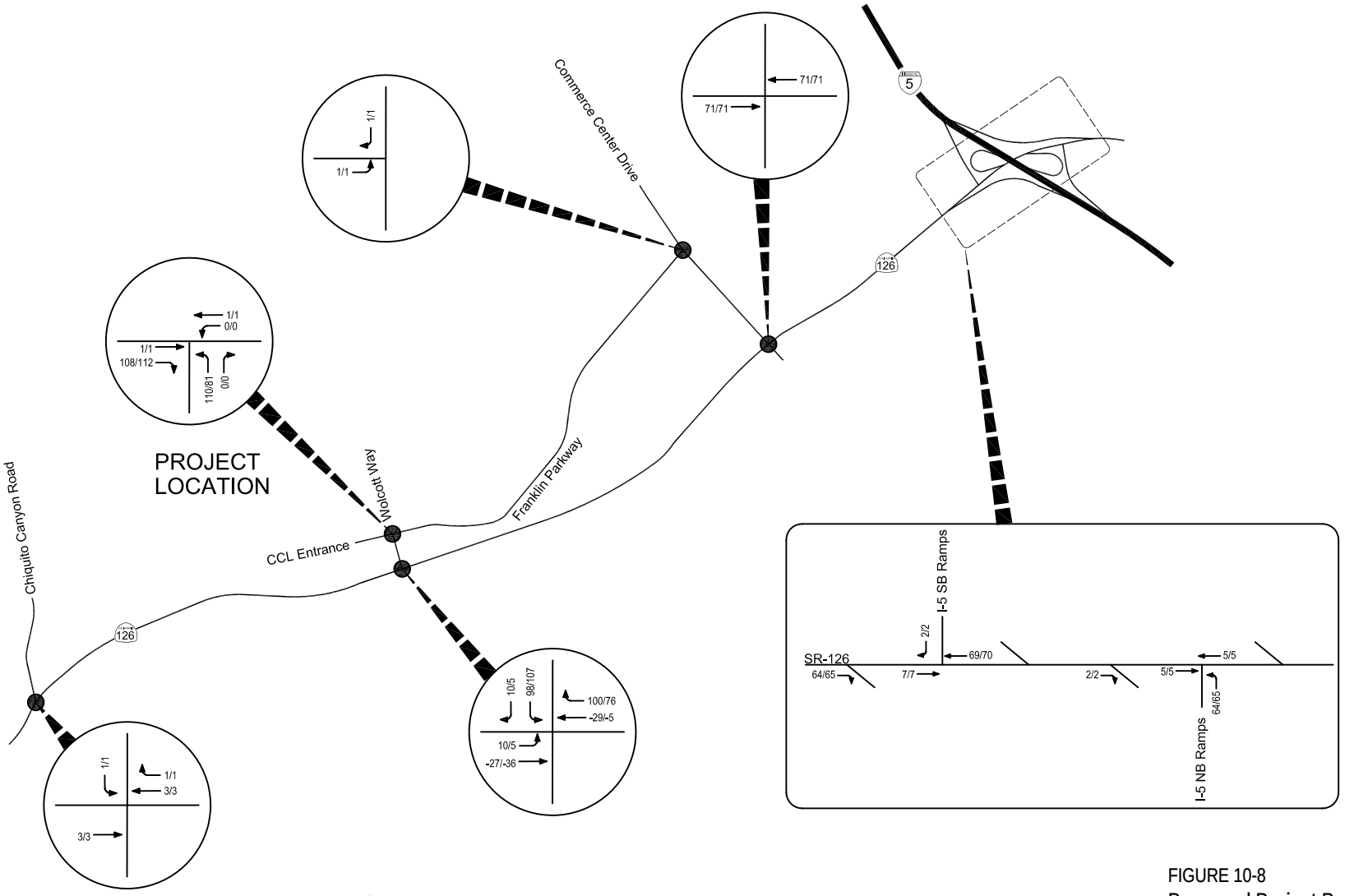


FIGURE 10-8
Proposed Project Peak-Hour Trips
Chiquita Canyon Landfill
Master Plan Revision

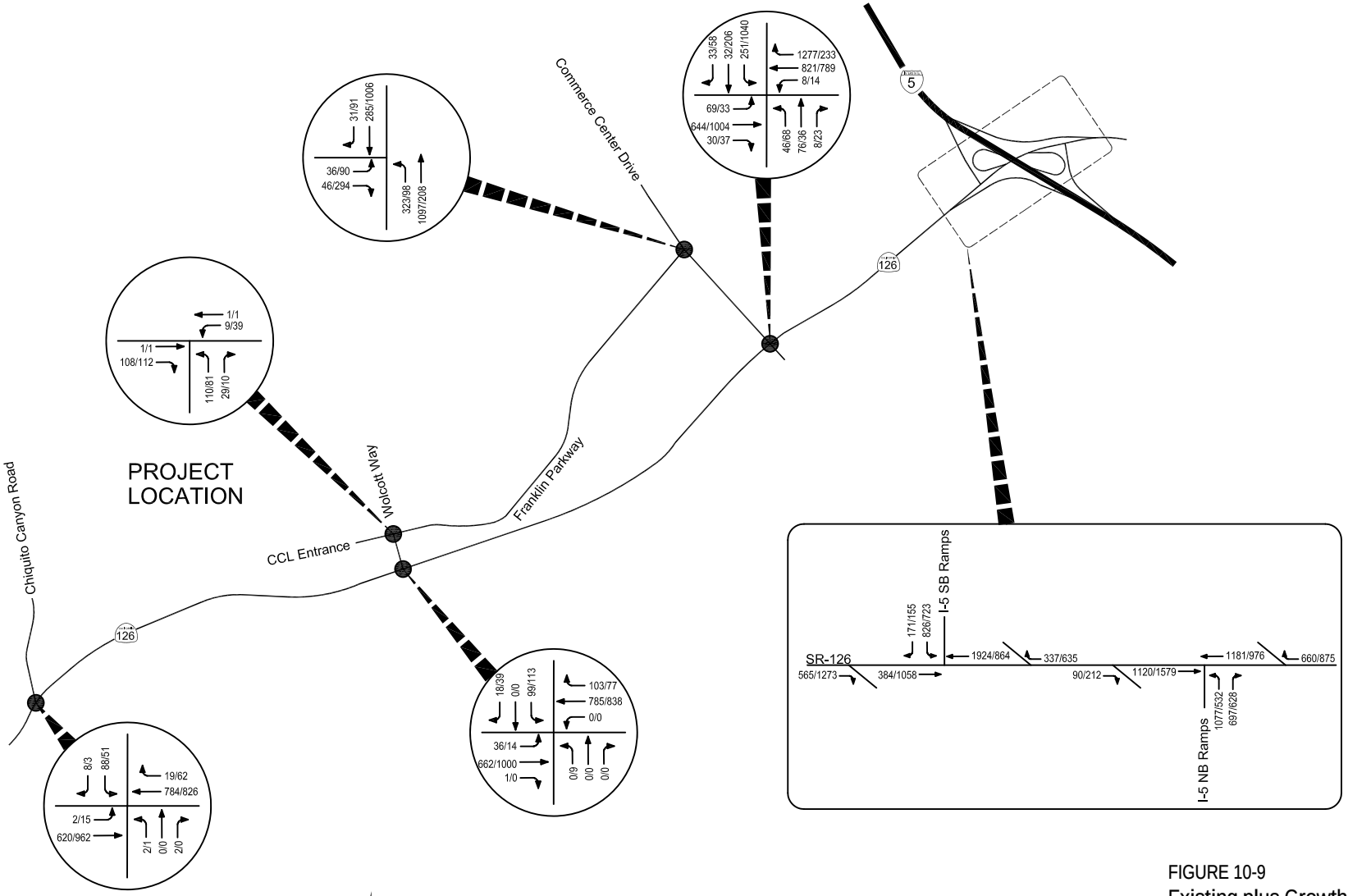


FIGURE 10-9
Existing plus Growth plus Project Peak Hour Volumes
Chiquita Canyon Landfill Master Plan Revision

TABLE 10-10
Summary of Intersection Analysis – Existing plus Growth plus Project Conditions

			Existing plus Growth Conditions								Existing plus Growth plus Project Conditions									
			A.M. Peak				P.M. Peak				A.M. Peak					P.M. Peak				
	Intersection	Control	Delay (sec/veh)	LOS	ICU	LOS	Delay (sec/veh)	LOS	ICU	LOS	Delay (sec/veh)	LOS	ICU	LOS	Significant Impact?	Delay (sec/veh)	LOS	ICU	LOS	Significant Impact?
1	Chiquito Canyon Road at SR-126	Unsignalized[a]	49.7	E	0.402	A	65.9	F	0.432	A	50.8	F	0.404	A	No	68.0	F	0.433	A	No
2	Chiquita Canyon Landfill Entrance at SR-126	Unsignalized[a]	25.7	D	0.369	A	45.5	E	0.439	A	Intersection does not exist with project									
3	Wolcott Way at SR-126	Signalized	14.2	B	0.371	A	29.2	C	0.432	A	13.6	B	0.409	A	No	27.3	C	0.465	A	No
4	Commerce Center Drive at SR-126	Signalized	27.0	C	0.546	A	71.0	E	0.852	D	28.1	C	0.568	A	No	73.9	E	0.875	D	**Yes**
5	I-5 Southbound Ramps at SR-126	Signalized	20.6	C	0.773	C	11.8	B	0.516	A	21.1	C	0.788	C	No	12.0	B	0.531	A	No
6	I-5 Northbound Ramps at SR-126	Signalized	26.3	C	0.556	A	26.7	C	0.443	A	26.2	C	0.570	A	No	26.5	C	0.458	A	No
7	Franklin Parkway at Commerce Center Drive	Signalized	9.1	A	0.383	A	19.2	B	0.426	A	9.1	A	0.384	A	No	19.2	B	0.427	A	No
8	Wolcott Way at Franklin Parkway	Unsignalized[b]	Intersection does not exist without project								7.8	A	0.206	A	No	8.0	A	0.199	A	No

[a] HCM results (delay) reported for worst stop controlled approach.

[b] HCM results (delay) reported for overall stop controlled intersection.

Review of the anticipated 95th percentile queue lengths in Table 10-11 shows that the peak-hour queue lengths do not exceed the available off-ramp storage in any of the scenarios analyzed.

TABLE 10-11
Interstate 5 Off-Ramp Queue Analysis at State Route 126

Intersection	Available Off-Ramp Storage Length (feet)	Existing Conditions Queue Length (feet)	Existing plus Growth Conditions Queue Length (feet)	Existing plus Growth plus Project Conditions Queue Length (feet)
I-5 southbound off-ramp and SR-126	1,600	237	281	281
I-5 northbound off-ramp and SR-126	1,300	507	556	556

10.5.2.5 Project Site Queuing Analysis

The Proposed Project will remove the existing CCL entrance, which is currently located on SR-126 between Chiquito Canyon Road and Wolcott Way, and construct a new entrance on the corner of Wolcott Way and Franklin Parkway. Figure 10-4 illustrates the location of the existing entrance and proposed entrance to CCL. Figure 10-5 illustrates a detailed plan of the proposed entrance. It is assumed that the new entrance will operate as an all-way stop controlled intersection at Wolcott Way and Franklin Parkway.

The new entrance of the CCL facility will bring vehicles to the site from Wolcott Way/Franklin Parkway. Vehicles will enter the site and drive westbound to the scales and gatehouses located approximately 900 feet west of the intersection of Wolcott Way and Franklin Parkway.

Main Entrance

A queuing analysis was completed for the main entrance to confirm that the projected traffic resulting from the Proposed Project will not queue through the Wolcott Way/Franklin Parkway intersection. The following assumptions were used in the queue calculations:

- The distance between the Wolcott Way and the limit line where vehicles must wait to enter the scales is 900 feet.
- There are two lanes of storage between the limit line where vehicles must wait to enter the scales and Wolcott Street (site entrance). The two lanes provide a total of 1,800 feet of storage.
- A third lane extends from the limit line to approximately 480 feet east.
- A fourth lane extends from the limit line to approximately 290 feet east.
- A fifth lane extends from the limit line to approximately 200 feet east.
- A sixth lane extends from the limit line to approximately 130 feet east.
- The combined storage of the four lanes is 2,900 feet.
- The average vehicle length is assumed to be 50 feet (truck).
- The proposed entrance can store 58 vehicles (50 feet per vehicle) at any given time.
- Based on historical gate receipt data, the average wait time at the scales is 1 minute per vehicle.
- The proposed entrance will have four scales on opening day. Each scale can process 60 vehicles per hour based on historical data. This will allow the Proposed Project entrance to process approximately 240 vehicles per hour (4 vehicles per minute).

- CCL is permitted to be open 24 hours per day, 6 days per week. This provides CCL the operational flexibility to coordinate with customers and arrange to be open when loads are anticipated. Therefore, there are never extended periods of time when vehicles would not be processed through the scales and forced to queue without release. Table 10-11 shows that historically there are no trips between 5:00 p.m. and 10:00 p.m. This is because CCL customers have historically not arranged to bring loads during this time. If needed, CCL would serve customers during this time as well.
- The vehicle arrival rate is typically spread out over the course of each hour. However, a peak 15-minute analysis was completed to analyze a worst-case scenario. A peak-hour factor (PHF) of 0.95 was used to generate the anticipated peak 15-minute arrival rate. The PHF of 0.95 was selected because this is consistent with the PHF observed on SR-126 in the study area during the peak periods (Appendix G). This type of analysis will project the worst-case queue length at the CCL entrance.

Table 10-12 summarizes the results of queue calculations for the projected CCL traffic that will arrive over the course of a typical day, based on the factors above. The analysis shows that the storage provided at the new CCL entrance will be able to accommodate the projected number of vehicles arriving to the site throughout the day. In addition, the peak 15-minute analysis shows that the provided storage also will accommodate the peak periods within each hour and not queue through the Wolcott Way/ Franklin Parkway intersection. Therefore, the proposed CCL entrance will provide enough storage to accommodate projected CCL traffic without queuing onto public roadways.

Intersection spacing on Wolcott Way between Franklin Parkway and SR-126 was also evaluated to assess the available storage for queuing on Wolcott Way. When the proposed CCL entrance is constructed, there will be approximately 450 feet of storage on Wolcott Way between SR-126 and Franklin Parkway/CCL entrance. Peak-hour intersection analysis shows that the northbound queue at Wolcott Way/Franklin Parkway and the southbound queue at Wolcott Way/SR-126 will not exceed 100 feet in either peak hour. Therefore, there is adequate storage on Wolcott Way to accommodate the increase in traffic due to the proposed CCL entrance.

Household Hazardous Waste Facility Entrance

As shown in Figure 10-4, the Proposed Project will build a Household Hazardous Waste Facility (HHWF) located immediately south of the main entrance to CCL (west of Wolcott Way). Drivers will enter the CCL main entrance and turn left to enter the HHWF through a two-way driveway located immediately west of Wolcott Way. Upon completion of their drop-off at the HHWF, drivers will exit through the same driveway they came in and turn right to exit through the CCL main driveway.

TABLE 10-12

Summary of Queuing Analysis at Proposed Chiquita Canyon Landfill Main Entrance

	(A)	(B)		(C)	(D)	
Time of Day	Hourly Processing Rate (veh/hour)[a]	Total Inbound Vehicles per hour	Will Queue Exceed Storage (Is B > A)?	Peak 15-Minute Processing Rate (veh/15-minute)[b]	Total Inbound Vehicles per peak 15 minutes[c]	Will Queue Exceed Storage (Is D > C)?
12:00 a.m. to 1:00 a.m.	240	10	No	60	3	No
1:00 a.m. to 2:00 a.m.	240	7	No	60	2	No
2:00 a.m. to 3:00 a.m.	240	17	No	60	4	No
3:00 a.m. to 4:00 a.m.	240	24	No	60	6	No
4:00 a.m. to 5:00 a.m.	240	73	No	60	19	No
5:00 a.m. to 6:00 a.m.	240	73	No	60	19	No
6:00 a.m. to 7:00 a.m.	240	66	No	60	17	No
7:00 a.m. to 8:00 a.m.	240	94	No	60	25	No
8:00 a.m. to 9:00 a.m.	240	104	No	60	27	No
9:00 a.m. to 10:00 a.m.	240	142	No	60	37	No
10:00 a.m. to 11:00 a.m.	240	198	No	60	52	No
11:00 a.m. to 12:00 p.m.	240	163	No	60	43	No
12:00 p.m. to 1:00 p.m.	240	118	No	60	31	No
1:00 p.m. to 2:00 p.m.	240	111	No	60	29	No
2:00 p.m. to 3:00 p.m.	240	132	No	60	35	No
3:00 p.m. to 4:00 p.m.	240	125	No	60	33	No
4:00 p.m. to 5:00 p.m.	240	108	No	60	28	No
5:00 p.m. to 6:00 p.m.	240	0	No	60	0	No
6:00 p.m. to 7:00 p.m.	240	0	No	60	0	No
7:00 p.m. to 8:00 p.m.	240	0	No	60	0	No
8:00 p.m. to 9:00 p.m.	240	0	No	60	0	No
9:00 p.m. to 10:00 p.m.	240	0	No	60	0	No
10:00 p.m. to 11:00 p.m.	240	38	No	60	10	No
11:00 p.m. to 12:00 a.m.	240	35	No	60	9	No

[a] Number of 50-foot vehicles that can be processed per hour at CCL entrance without queuing through MRF entrance road.

[b] Number of 50-foot vehicles that can be processed per 15-minutes at CCL entrance without queuing through MRF entrance road.

[c] Assumes a peak hour factor of 0.95 to calculate the peak 15-minute arrival rate.

Yellow highlighting indicates peak arrival rate of CCL.

Queuing calculations were also done for the HHWF driveway to determine how many vehicles the HHWF can accommodate on a typical event day without queuing through the CCL main entrance. The following assumptions were used in the queue calculations:

- The HHWF will be a permanent center that offers a twice-a-month service, between the hours of 9:00 am and 3:00 pm (off-peak hours of the surrounding road network).
- The peak arrival period for the HHWF is between 9:00 am and 11:00 am.
- It takes approximately 10 minutes per car to unload.
- The entrance driveway for the HHWF provides 680 feet of storage.
- The average vehicle length is assumed to be 25 feet (passenger car).
- The proposed entrance can store 27 vehicles (25 feet per vehicle) at any given time.
- The proposed drop-off area has two lanes and can process six cars at one time (three cars in each lane). Given the average unload time of 10 minutes per car, the drop-off area can process 36 cars per hour.

Table 10-13 summarizes the results of the queue calculations. The analysis shows that the HHWF can accommodate up to 243 vehicles on a typical event day without queuing through the CCL main entrance.

It is important to note that if the HHWF event day occurs on a weekday, the HHWF traffic will mix with the CCL truck traffic as they both enter the project site. As shown in Figure 10-4, the left-turn pocket into the HHWF will ensure that HHWF traffic does not block truck traffic entering the site and continuing west to the CCL scales. Based on the queueing analysis summarized in Table 10-13, it can also be concluded that truck traffic is not projected to queue and block the entrance to the HHWF since the number of projected trucks entering CCL will never exceed the service rate at the scales.

TABLE 10-13
Summary of Queuing Analysis at Proposed CCL HHWF Entrance

Time of Day	Arrival Rate (veh per 10 mins)	Processing Rate (veh per 10 mins)	Queue at end of this period (veh)	Queue at end of this period (ft)	Available Storage (ft)	Will Demand Exceed Storage?
9:10 a.m.	7	6	1.0	25	680	No
9:20 a.m.	7	6	2.0	50	680	No
9:30 a.m.	8	6	4.0	100	680	No
9:40 a.m.	8	6	6.0	150	680	No
9:50 a.m.	8	6	8.0	200	680	No
10:00 a.m.	8	6	10.0	250	680	No
10:10 a.m.	8	6	12.0	300	680	No
10:20 a.m.	8	6	14.0	350	680	No
10:30 a.m.	8	6	16.0	400	680	No
10:40 a.m.	8	6	18.0	450	680	No
10:50 a.m.	8	6	20.0	500	680	No
11:00 a.m.	8	6	22.0	550	680	No
11:10 a.m.	7	6	23.0	575	680	No
11:20 a.m.	7	6	24.0	600	680	No
11:30 a.m.	7	6	25.0	625	680	No
11:40 a.m.	7	6	26.0	650	680	No
11:50 a.m.	7	6	27.0	675	680	No
12:00 p.m.	6	6	27.0	675	680	No
12:10 p.m.	6	6	27.0	675	680	No
12:20 p.m.	6	6	27.0	675	680	No
12:30 p.m.	6	6	27.0	675	680	No

TABLE 10-13
Summary of Queuing Analysis at Proposed CCL HHWF Entrance

Time of Day	Arrival Rate (veh per 10 mins)	Processing Rate (veh per 10 mins)	Queue at end of this period (veh)	Queue at end of this period (ft)	Available Storage (ft)	Will Demand Exceed Storage?
12:40 p.m.	6	6	27.0	675	680	No
12:50 p.m.	6	6	27.0	675	680	No
1:00 p.m.	6	6	27.0	675	680	No
1:10 p.m.	6	6	27.0	675	680	No
1:20 p.m.	6	6	27.0	675	680	No
1:30 p.m.	6	6	27.0	675	680	No
1:40 p.m.	6	6	27.0	675	680	No
1:50 p.m.	6	6	27.0	675	680	No
2:00 p.m.	6	6	27.0	675	680	No
2:10 p.m.	6	6	27.0	675	680	No
2:20 p.m.	6	6	27.0	675	680	No
2:30 p.m.	6	6	27.0	675	680	No
2:40 p.m.	6	6	27.0	675	680	No
2:50 p.m.	6	6	27.0	675	680	No
3:00 p.m.	6	6	27.0	675	680	No
Total Number of Vehicles	243	**Maximum Queue Length (ft)**		675	**Will Queue Exceed Storage**	No

10.5.2.6 Traffic Index Calculations

The traffic index (TI) is a measure of the deteriorating effects that truck traffic has on asphalt concrete pavement. TI calculations were performed along Wolcott Way and SR-126 for the project. TI calculations were performed in accordance with the *County of Los Angeles Department of Public Works, Traffic Index Guidelines* (LACDPW, 2002). Ten-year TI calculations were performed for both Wolcott Way and SR-126 in the study area. Table 10-14 summarizes the 10-year TI calculations for 2014 conditions with and without the Proposed Project. Table 10-15 summarizes the 20-year TI calculations for 2014 conditions with and without the project. These comparisons help to understand the effect that Proposed Project traffic will have on pavement deterioration. TI worksheets are provided in Appendix G.

The TI calculations show that the Proposed Project will have no effect on the 10-year or 20-year TIs for SR-126. The increase in truck traffic on SR-126 with the Proposed Project is minimal compared to the amount of truck traffic already using SR-126. On Wolcott Way, the Proposed Project will increase the 10-year TI from 7.5 to 9.0 and the 20-year TI from 8.0 to 10.0. This is expected because the location of the new landfill entrance will increase the amount of truck traffic on Wolcott Way.

TABLE 10-14
Summary of 10-Year Traffic Index Calculations

Roadway	10-Year TI Based on 2014 without Project Volumes	10-Year TI Based on 2014 with Project Volumes
SR-126 between Wolcott Way and Commerce Center Drive	12.0	12.0
Wolcott Way between SR-126 and Franklin Parkway	7.5	9.0

TABLE 10-15
Summary of 20-Year Traffic Index Calculations

Roadway	20-Year TI Based on 2014 without Project Volumes	20-Year TI Based on 2014 with Project Volumes
SR-126 between Wolcott Way and Commerce Center Drive	13.5	13.5
Wolcott Way between SR-126 and Franklin Parkway	8.0	10.0

10.5.2.7 Summary

Based on the analysis above, the Proposed Project would not cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system; substantially increase hazards due to a design feature; result in inadequate emergency access or parking capacity; or conflict with adopted policies, plans, or programs supporting alternative transportation. The Proposed Project would exceed a LOS standard established by the regulatory agency. All of the study intersections will operate at LOS D or better (using the ICU methodology) in Existing plus Growth plus Project conditions and will not exceed the Los Angeles County traffic impact thresholds. However, the Proposed Project will have a temporary significant impact at the intersection of Commerce Center Drive and SR-126 based on the Los Angeles County CMP guidelines. The intersection of Commerce Center Drive and SR-126 will be under construction in 2015 as part of the Commerce Center Drive/SR-126 improvement project. The Commerce Center Drive/SR-126 improvement project is scheduled to be complete in 2016. Upon completion, the planned improvements at this intersection will return operations to LOS D or better during both peak hours. Therefore, no mitigation is required of the CCL project since mitigation measures during construction conditions would interfere with the planned staging of the Commerce Center Drive/SR-126 improvement project.

Review of the queue lengths at the northbound and southbound I-5 off-ramps shows that the peak-hour queue lengths do not exceed the available off-ramp storage in Existing plus Growth plus Project conditions. There would be no impact.

The project entrance is proposed to improve access to the site and will not substantially increase hazards due to a design feature or affect emergency access to the site or any other property. The queuing analysis shows that the storage provided at the CCL main entrance will be able to accommodate the projected number of vehicles arriving to the site throughout the day and will provide enough storage to accommodate projected CCL traffic without queuing onto public roadways. Queuing calculations were also done for the HHWF driveway. The analysis shows that the HHWF can accommodate up to 243 vehicles on a typical event day without queuing through the CCL main entrance driveway.

Intersection spacing on Wolcott Way between Franklin Parkway and SR-126 was also evaluated and it was determined that the northbound queue at Wolcott Way/ Franklin Parkway and the southbound queue at Wolcott Way/SR-126 will not exceed 100 feet in either peak hour. Adequate storage exists on Wolcott Way to accommodate the increase in traffic due to the proposed CCL entrance.

Sufficient parking will be provided onsite to meet the anticipated parking needs of the project. No offsite parking is needed. As a result, the project will not result in impacts to parking capacity. Finally, the Proposed Project will not conflict with adopted policies, plans, or programs supporting alternative transportation as there will be no changes related to alternative transportation. Construction of the Proposed Project will occur entirely onsite and will not affect transit, bicycle facilities or other forms of alternative transportation.

10.6 Interim Condition

At the request of LACDPW, the interim condition impact analysis considers the combined traffic impacts of the Proposed Project (in addition to the ambient growth rate) with a subset of the nearby related projects identified in Chapter 3.0, General Setting and Resource Area Analysis. For the purposes of this interim condition impact analysis, the subset of the nearby related projects identified in Chapter 3.0, General Setting and Resource Area Analysis, includes any project that has already been approved but is not yet constructed, or any project that is in

the application process and is a reasonably foreseeable development. The projects currently planned or proposed in the cumulative impact area of the Proposed Project were provided by the Los Angeles County Department of Regional Planning (LADRP). The cumulative project information is based on the best information available at the time this DEIR was prepared. Two projects were identified and are summarized in Table 10-16. The location of each of these projects and their associated trip distribution information is attached in Appendix G. Cumulatively, the other development have the potential to generate a total of 919 trips in the morning peak hour, and 1,249 trips in the evening peak hour by 2015 in the vicinity of the project.

Traffic from the other development projects was assigned to the study intersections by referencing the traffic studies for each project. The assumed trip distribution of each of these projects through the study area is also included in Appendix G. The total combined traffic generated in the Cumulative condition (Existing plus Growth plus Other Development traffic) at each of the study intersections is shown in Figure 10-10.

TABLE 10-16
Summary of Other Development Land Use and Trip Generation

Project					Peak Hour					
					AM			PM		
County ID	Name	Land Use	Quantity	Units	In	Out	Total	In	Out	Total
PM060030	Sterling Gateway	Industrial Park	1,221.36	TSF	672	122	794	159	635	794
PM060734	Valencia Gateway	Shopping Center	135.01	TSF	76	49	125	218	237	455
		Total Forecasted Trips by the Year 2015			***748***	***171***	***919***	***377***	***872***	***1,249***

10.6.1 Level of Service Analysis

10.6.1.1 Existing plus Growth plus Other Development Conditions

The results of the Existing plus Growth plus Other Development analysis are summarized in Table 10-17. Morning and evening peak hour operating conditions were evaluated using HCM and ICU methodologies. Copies of intersection analysis worksheets are provided in Appendix G.

TABLE 10-17
Summary of Intersection Analysis – Existing plus Growth plus Other Development Conditions

			Existing plus Growth plus Other Development Conditions							
			A.M. Peak				P.M. Peak			
	Intersection	Control	Delay (sec/veh)	LOS	ICU	LOS	Delay (sec/veh)	LOS	ICU	LOS
1	Chiquito Canyon Road at SR-126	Unsignalized[a]	58.7	F	0.407	A	88.9	F	0.442	A
2	Chiquita Canyon Landfill Entrance at SR-126	Unsignalized[a]	27.9	D	0.374	A	55.7	F	0.449	A
3	Wolcott Way at SR-126	Signalized	35.0	D	0.385	A	42.6	D	0.448	A
4	Commerce Center Drive at SR-126	Signalized	36.0	D	0.667	B	97.8	F	0.949	E
5	I-5 Southbound Ramps at SR-126	Signalized	24.0	C	0.824	D	12.6	B	0.553	A
6	I-5 Northbound Ramps at SR-126	Signalized	27.4	C	0.603	A	26.7	C	0.478	A
7	Franklin Parkway at Commerce Center Drive	Signalized	8.3	A	0.435	A	19.5	B	0.507	A
8	Wolcott Way at Franklin Parkway	Unsignalized[b]	Intersection does not exist without project							

[a] HCM results (delay) reported for worst stop controlled approach.
[b] HCM results (delay) reported for overall stop controlled intersection.

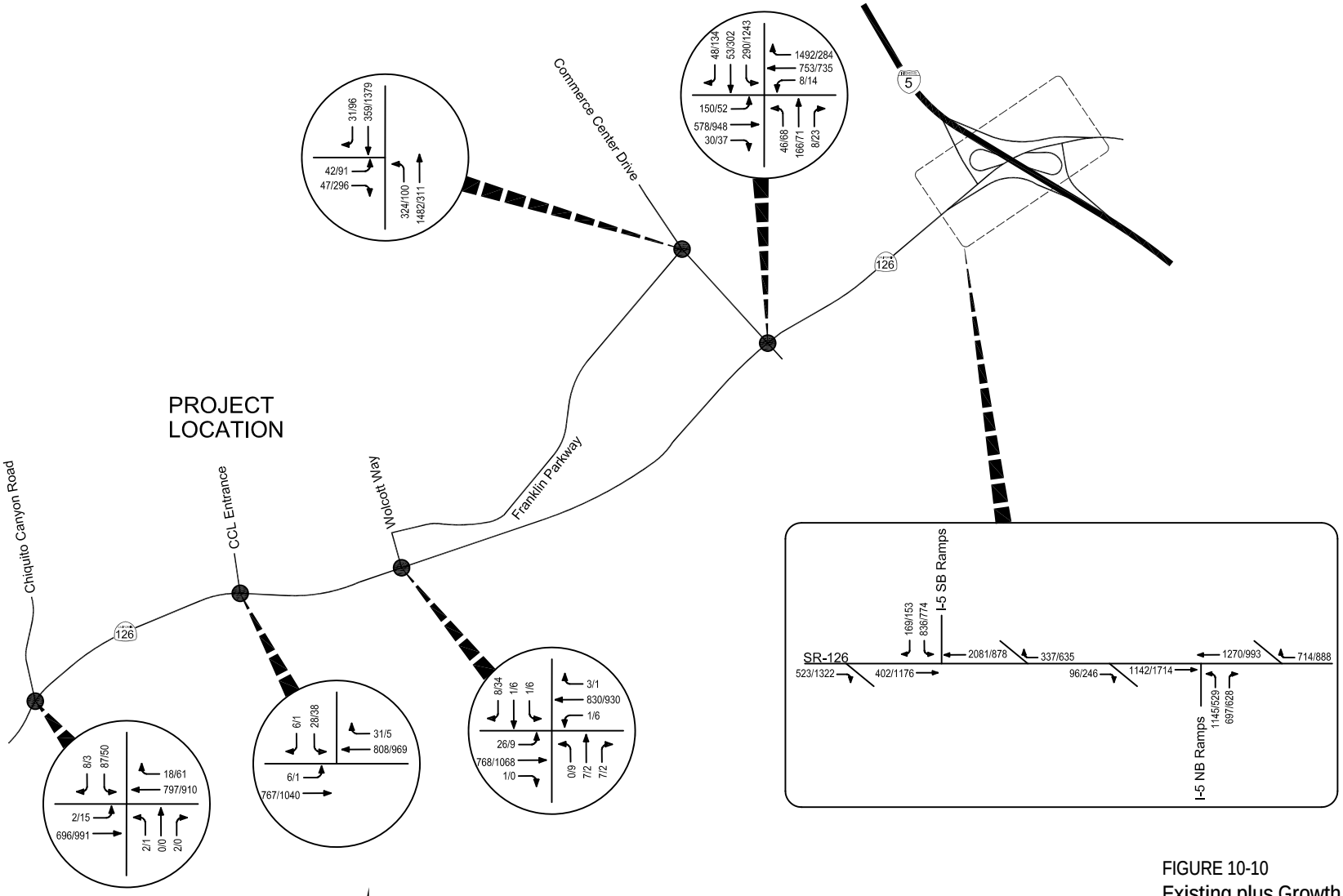


FIGURE 10-10
Existing plus Growth plus Other Development Peak Hour Volumes
Chiquita Canyon Landfill Master Plan Revision

Table 10-17 shows that all but one study intersection will operate at LOS D or better using the ICU methodology in the Existing plus Growth plus Other Development conditions. The intersection of Commerce Center Drive and SR-126 is projected to operate at LOS E in the p.m. peak hour using the ICU methodology. The intersection of Commerce Center Drive and SR-126 will be under construction in 2015 as part of the Commerce Center Drive/SR-126 improvement project. The Commerce Center Drive/SR-126 improvement project is scheduled to be complete in 2016. Upon completion, the planned improvements at this intersection (interchange) will return operations to LOS D or better in both the morning and evening peak hours.

Using the HCM methodology, the following intersections will operate at LOS E or worse:

- Chiquito Canyon Road at SR-126 (two-way stop controlled, LOS F in the a.m. and p.m.)
- Chiquita Canyon Landfill Entrance at SR-126 (two-way stop controlled, LOS F in the p.m.)
- Commerce Center Drive at SR-126 (signalized, LOS F in the p.m.)

Peak hour volume traffic signal warrants indicate that signals are not warranted at Chiquito Canyon Road/ SR-126 and Chiquita Canyon Landfill Entrance/SR-126 under Existing plus Growth plus Other Development conditions. Copies of the peak hour volume warrant worksheets are provided in Appendix G.

10.6.1.2 Existing plus Growth plus Other Development Conditions plus Project Conditions

Table10-18 shows that all but one of the study intersections will operate at LOS D or better using the ICU methodology in the Existing plus Growth plus Other Development plus Project condition. The intersection of Commerce Center Drive and SR-126 is projected to operate at LOS E in the PM peak hour.

Using the HCM methodology, the following intersections will operate at LOS E or worse:

- Chiquito Canyon Road at SR-126 (two-way stop controlled, LOS F in the a.m. and p.m.)
- Commerce Center Drive at SR-126 (signalized, LOS F in the p.m.)

The Proposed Project will have a temporary significant impact at the intersection of Commerce Center Drive and SR-126 based on the Los Angeles County CMP guidelines. However, upon completion of the Commerce Center Drive/SR-126 improvement project, operations at the intersection will return to LOS D or better in both the morning and evening peak hours.

The Proposed Project will have a temporary significant impact at the intersection of Commerce Center Drive and SR-126 based on the Los Angeles County CMP guidelines. However, the intersection of Commerce Center Drive and SR-126 will be under construction in 2015 as part of the Commerce Center Drive/SR-126 improvement project. The Commerce Center Drive/SR-126 improvement project is scheduled to be complete in 2016. Upon completion, the planned improvements at this intersection will return operations to LOS D or better in both the morning and evening peak hours. Therefore, no mitigation is required of the CCL project since the impact is temporary and because mitigation measures during construction conditions would interfere with the planned staging of the Commerce Center Drive/SR-126 improvement project.

Peak hour volume traffic signal warrants indicate that signals are not warranted at Chiquito Canyon Road/ SR-126 under Existing plus Growth plus Other Development plus Project conditions. Copies of the peak hour volume warrant worksheets are provided in Appendix G.

TABLE 10-18

Summary of Intersection Analysis – Existing plus Growth plus Other Development plus Project Conditions

			Existing plus Growth plus Other Development Conditions								Existing plus Growth plus Other Development plus Project Conditions									
			A.M. Peak				P.M. Peak				A.M. Peak					P.M. Peak				
	Intersection	Control	Delay (sec/veh)	LOS	ICU	LOS	Delay (sec/veh)	LOS	ICU	LOS	Delay (sec/veh)	LOS	ICU	LOS	Significant Impact?	Delay (sec/veh)	LOS	ICU	LOS	Significant Impact?
1	Chiquito Canyon Road at SR-126	Unsignalized[a]	58.7	F	0.407	A	88.9	F	0.442	A	60.3	F	0.409	A	No	90.5	F	0.443	A	No
2	Chiquita Canyon Landfill Entrance at SR-126	Unsignalized[a]	27.9	D	0.374	A	55.7	F	0.449	A	Intersection does not exist with project									
3	Wolcott Way at SR-126	Signalized	35.0	D	0.385	A	42.6	D	0.448	A	50.9	D	0.423	A	No	37.1	D	0.481	A	No
4	Commerce Center Drive at SR-126	Signalized	36.0	D	0.667	B	97.8	F	0.949	E	37.7	D	0.689	B	No	105.8	F	0.972	E	**Yes**
5	I-5 Southbound Ramps at SR-126	Signalized	24.0	C	0.824	D	12.6	B	0.553	A	25.4	C	0.838	D	No	12.8	B	0.566	A	No
6	I-5 Northbound Ramps at SR-126	Signalized	27.4	C	0.603	A	26.7	C	0.478	A	27.4	C	0.618	B	No	26.5	C	0.492	A	No
7	Franklin Parkway at Commerce Center Drive	Signalized	8.3	A	0.435	A	19.5	B	0.507	A	8.3	A	0.436	A	No	19.5	B	0.507	A	No
8	Wolcott Way at Franklin Parkway	Unsignalized[b]	Intersection does not exist without project								7.7	A	0.206	A	No	8	A	0.199	A	No

[a] HCM results (delay) reported for worst stop controlled approach.

[b] HCM results (delay) reported for overall stop controlled intersection.

10.6.2 I-5 Freeway Ramp Queuing Analysis

Queue lengths at the northbound and southbound I-5 off-ramps were examined to evaluate whether or not adequate storage is available to accommodate peak-hour traffic with the Proposed Project under the Existing plus Growth plus Other Development Conditions and the Existing plus Growth plus Other Development Conditions with Project. The queue lengths reported in Table 10-19 represent the 95th percentile queue length as calculated in Synchro. The worse peak-hour queue length is reported.

TABLE 10-19
Interstate 5 Off-Ramp Queue Analysis at State Route 126

Intersection	Available Off-Ramp Storage Length (feet)	Existing Conditions Queue Length (feet)	Existing plus Growth plus Other Development Conditions Queue Length (feet)	Existing plus Growth plus Other Development plus Project Conditions Queue Length (feet)
I-5 southbound off-ramp and SR-126	1,600	237	303	311
I-5 northbound off-ramp and SR-126	1,300	507	564	565

Review of the anticipated 95th percentile queue lengths in Table 10-19 shows that the peak-hour queue lengths do not exceed the available off-ramp storage in any of the scenarios analyzed. In addition, the Proposed Project will only cause a slight increase (less than 10 feet) in the queue length in the Existing plus Growth plus Other Development plus Project conditions (based on Synchro analysis).

10.6.3 Summary

The Proposed Project would result in a temporary significant impact at the intersection of Commerce Center Drive and SR-126 based on the Los Angeles County CMP guidelines under Existing plus Growth plus Other Development plus Project conditions. However, the Commerce Center Drive/SR-126 improvement project is scheduled to be complete in 2016 and the planned improvements at this intersection will return operations to LOS D or better during both peak hours. Therefore, no mitigation is required of the CCL project since the impact is temporary and because mitigation measures during construction conditions would interfere with the planned staging of the Commerce Center Drive/SR-126 improvement project. With implementation of the Commerce Center Drive/SR-126 improvement project, the Proposed Project impact at this intersection would be reduced to less than significant. No other significant adverse impacts to traffic resulting from the Proposed Project are anticipated.

10.7 Mitigation Measures

The Proposed Project would result in a temporary significant impact at the intersection of Commerce Center Drive and SR-126 based on the Los Angeles County CMP guidelines. However, the Commerce Center Drive/ SR-126 improvement project is scheduled to be complete in 2016 and the planned improvements at this intersection will return operations to LOS D or better during both peak hours. Therefore, no mitigation is required of the CCL project since the impact is temporary and because mitigation measures during construction conditions would interfere with the planned staging of the Commerce Center Drive/SR-126 improvement project. No other significant adverse impacts to traffic resulting from the Proposed Project are anticipated.

10.8 Significance After Mitigation

With implementation of the Commerce Center Drive/SR-126 improvement project, the Proposed Project impacts would be reduced to less than significant.

10.9 Cumulative Impacts

The cumulative impact analysis considers the combined traffic impacts of the Proposed Project (in addition to the ambient growth rate) with a subset of the nearby related projects identified in Chapter 3.0, General Setting and Resource Area Analysis.

For the purposes of this long-term cumulative impact analysis, the subset of the nearby related projects identified in Chapter 3.0, General Setting and Resource Area Analysis, excludes any project that has already been approved but is not yet constructed, or any project that is in the application process and is a reasonably foreseeable development, as those projects are accounted for in Section 10.6, Interim Condition. The projects currently planned or proposed in the cumulative impact area of the Proposed Project were provided by the LADRP. The cumulative project information is based on the best information available at the time this DEIR was prepared.

Most notable on the list of projects are the Newhall Ranch developments, located immediately south, east, and west of the Proposed Project and the Caltrans SR-126/ Commerce Center Drive Interchange Improvements Project (SR-126 Improvements Project), located approximately 1 mile east of the Project.

Construction and occupancy of all four of the Newhall Ranch developments will occur roughly between 2014 and 2033 (NLF, pers. comm., 2014). The SR-126 Improvements Project began construction in late 2012 and is anticipated to be complete in late 2015/early 2016. The SR-126 Improvements Project is intended to improve local access and traffic circulation; incorporate planned infrastructure improvements consistent with local and regional planning efforts; enhance driver safety; and accommodate planned growth within the study area. Specifically, the SR-126 Improvements Project would prevent deficient roadway and intersection operations that would result from the buildout of planned development in the area (Caltrans, 2005).

Operation of the Proposed Project will continue for an additional 20 to 40 years depending on when the landfill reaches final grade, thus overlapping with construction and operation of the surrounding cumulative projects. Based on the SR-126 Improvements Project, traffic conditions at the SR 126/Commerce Center Drive intersection will be improved over existing conditions and the project is proposed to accommodate future traffic growth in the area. Furthermore, the Newhall Ranch developments would require detailed CEQA analysis and adequate mitigation measures; therefore it is reasonable to assume that they would also include mitigation measures (including roadway and intersection improvements) to reduce any cumulative traffic impacts on the surrounding road network to a less-than-significant level. Therefore, the long-term cumulative impact that would result from the combination of the Proposed Project's incremental impact and the effects of other projects is not considered to be significant.

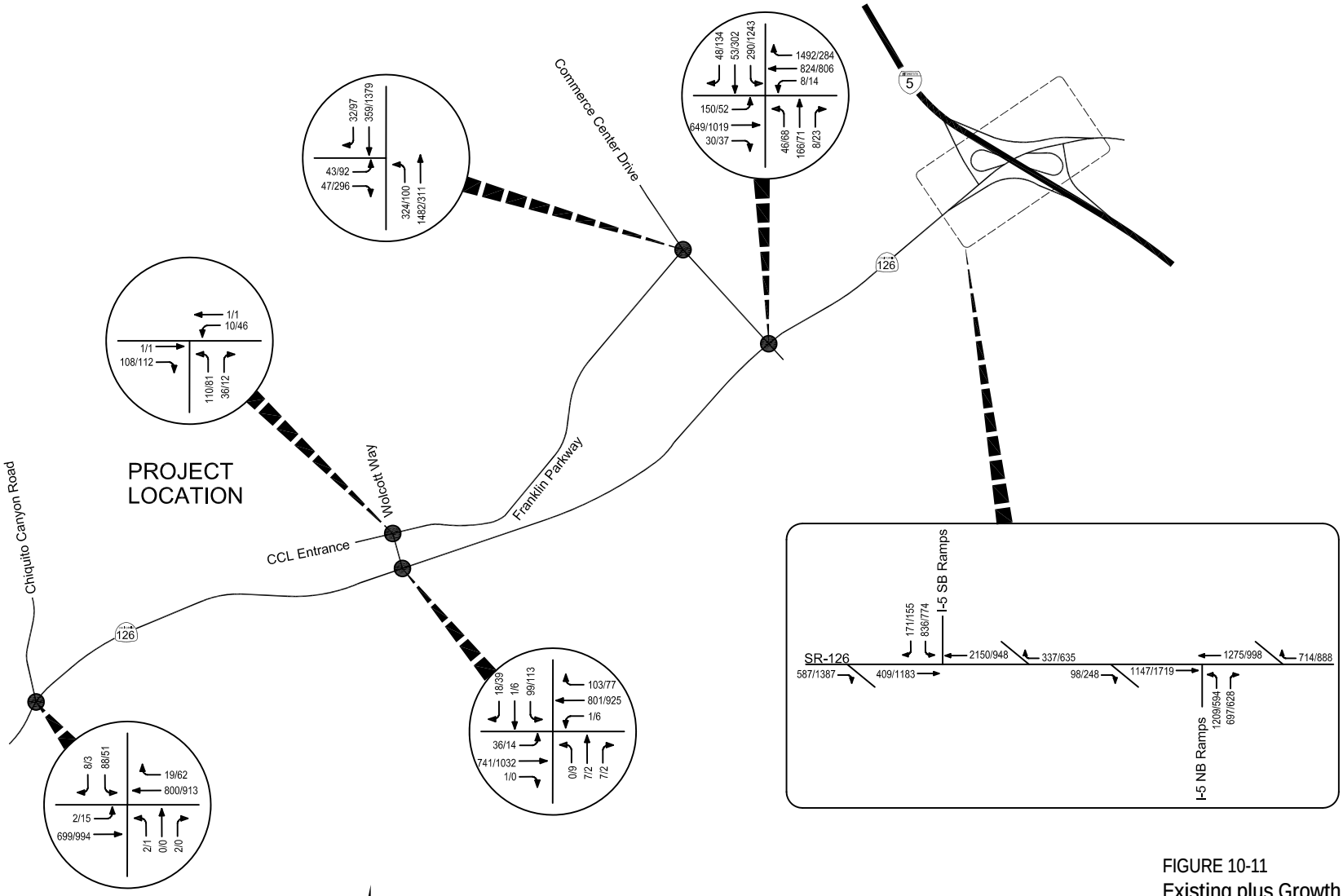


FIGURE 10-11
Existing plus Growth plus Other Development plus Project Peak Hour Volumes
Chiquita Canyon Landfill Master Plan Revision