

## 4.14 TRANSPORTATION AND TRAFFIC

### 4.14.1 Environmental Setting

#### Transportation System

Figure 4.14-1 shows highways and local roadways in the project vicinity that may be used by project vehicles.

#### Highways

SR-125, oriented north-south, is located in the project area. SR-125 within the project area is an express toll road that is also designated the South Bay Expressway (SBE 2012). SR-54, oriented southwest-northeast, is approximately 2 miles northeast of Miguel Substation. I-805, oriented north-south, is approximately 5 miles west of the project area.

#### Local Roadways

San Diego County and the City of Chula Vista maintain local roadways in the project area and vicinity. Local roadways that would be used to access the project area are listed by jurisdiction in Table 4.14-1.

**Table 4.14-1 Project Area Access Roadways**

Jurisdiction	Roads
San Diego County	Bonita Road, Briarwood Road, Proctor Valley Road (up to Chula Vista city limits), San Miguel Road (up to El Rancho Grande), Sweetwater Road
City of Chula Vista	Birch Road, Boswell Road, Calle La Marina East, Corte Anacapa, East H Street, Eastlake Parkway, Hunte Parkway, Lakeshore Drive, Lane Avenue, Mackenzie Creek Road, Mountain Miguel Road, Olympic Parkway, Otay Lakes Road, Proctor Valley Road (up to Chula Vista city limits), San Miguel Ranch Road, Wueste Road
Private	Cabo Bahia

*Source: County of San Diego 2013*

#### Bicycle Facilities

The City of Chula Vista designates bike lanes on several area roadways. Olympic Parkway, Birch Road, Eastlake Parkway, Hunte Parkway, and Mountain Miguel Road contain designated bike routes (City of Chula Vista 2011).

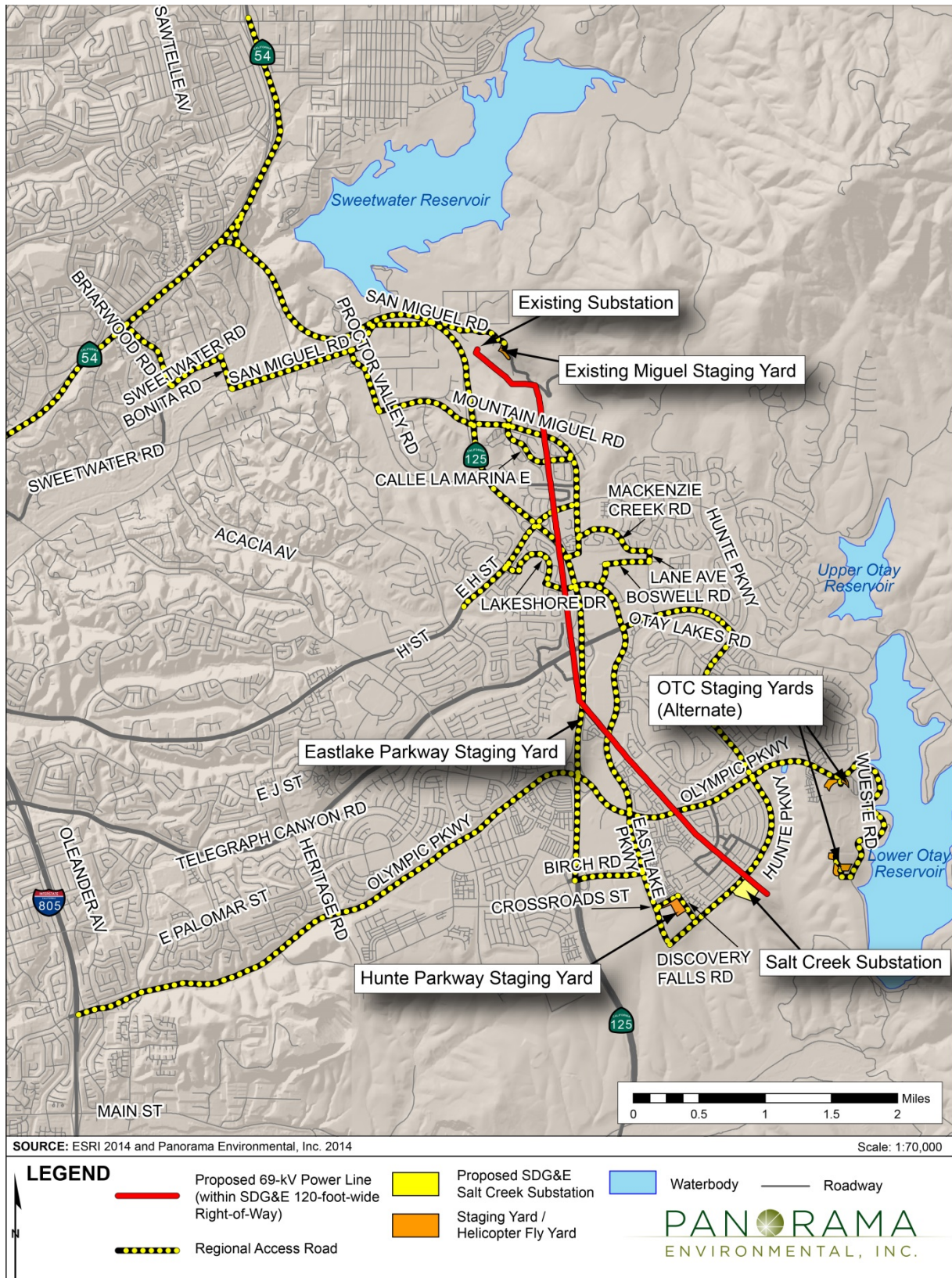
#### Transit Services

The San Diego Metropolitan Transit System (SDMTS) provides public transit to the project area and vicinity. SDMTS operates three bus routes in the vicinity of the project on the following roads (City of Chula Vista 2012):

- **Route 703—Otay Ranch Town Center to H Street Trolley:** Service on Sundays on Olympic Parkway and Eastlake Parkway near the TL 6965 alignment.

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**Figure 4.14-1 Project Area Access Routes**



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- **Route 707—Southwestern College to Otay Ranch Town Center:** Service Monday through Friday on Eastlake Parkway (with a bus stop adjacent to the ROW), Olympic Parkway, Eastlake Drive, Lane Avenue, Proctor Valley Road, and East H Street.
- **Route 709—Otay Ranch Town Center to H Street Trolley:** Service Monday through Saturday on Olympic Parkway, Eastlake Parkway (with a bus stop adjacent to the ROW), Boswell Road, Proctor Valley Road, and East H Street.

### Air Traffic

There are three airports located within 6 miles of the project area. Table 4.14-2 summarizes the distance between the project and the airport and the length of the runways at each airport.

**Table 4.14-2 Airports and Airstrips in the Project Area Vicinity**

Airport/Airstrip	Approximate Distance to Project Facility	Runway Lengths (feet)
John Nichols' Field (private)	3.5 miles (18,480 feet) east of the proposed substation	2,400; 1,800
Brown Field Municipal Airport (public)	3.6 miles (19,008 feet) southeast of the proposed substation	7,972; 3,180
Tijuana International Airport (public)	5.3 miles (27,984 feet) south of the proposed substation	9,711; 6,561

### Traffic Volumes and Levels of Service

#### Methods

Data on existing traffic volumes and average daily traffic (ADT) on area roadways were obtained from government data sources. No traffic counts were conducted on area roadways due to the presence of recent data and the low potential for high traffic volumes on roads that lacked recent ADT data. The CPUC reviewed the following documents to obtain existing traffic volume and ADT data for area roadways:

- Traffic Volumes on California State Highways (Caltrans 2012)
- City of Chula Vista General Plan (City of Chula Vista 2005)
- Traffic Volumes for the City of Chula Vista (City of Chula Vista 2013b)

ADT data were not available for most two-lane roads in the area. The traffic levels for roads without available data were analyzed using Google Earth satellite imagery. The location of nearby arterials, number of residences and businesses, and alternative access points were assessed on the satellite image to evaluate the number of daily trips that could be expected on the road.

CEQA guidelines for traffic impact analyses are being revised by the California Office of Planning and Research (OPR) to reflect the use of vehicle miles traveled (VMT) rather than Level of Service (LOS), consistent with SB 743. The Office of Planning and Research developed preliminary discussion draft guidelines for the use of VMT in CEQA impact analysis (OPR 2014); however no final guidance is currently available. The proposed project will generate additional trips during construction and will involve construction activities within roadways

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that could create a traffic hazard; however the proposed project does not involve land use changes that would create a permanent source of traffic in the area. LOS provides a more accurate account of the traffic impacts for the proposed project than VMT because the long-term generation of VMT from the project is negligible. Additionally, the General Plans and policies for the City of Chula Vista and County of San Diego currently use LOS to assess traffic impacts. For these reasons, the traffic impacts of this project will be analyzed in terms of LOS rather than VMT.

### Definition of Level of Service

Roadways and intersections are rated at various levels of service (LOS) to describe the roadway operating condition. LOS ratings range from LOS A, which represents the best range of operating conditions, to LOS F, which represents the worst operating conditions. Basic definitions of LOS are presented in Table 4.14-3. LOS can be estimated based on a road's traffic volume-to-road capacity ratio and the average delay experienced by vehicles at an intersection.

**Table 4.14-3 Level of Service Criteria for Roadways and Unsignalized Intersections**

LOS	Traffic Flow Conditions
A	Traffic is typically free-flowing at average travel speeds, with very little delay. Vehicles are seldom impeded in their ability to maneuver in the traffic stream. Delays at intersections are minimal.
B	Represents reasonably unimpeded operations at average travel speeds. The ability to maneuver in the traffic stream is slightly restricted but the majority of vehicles do not stop and it is not bothersome.
C	Represents stable operations with acceptable delays; if an intersection is signalized, a few drivers may have to wait through one signal cycle. The ability to change lanes and maneuver may be more restricted than LOS B.
D	Congestion occurs and a small change in volume increases delays substantially during short periods, but excessive backups do not occur.
E	Congestion occurs with extensive delays on one or more signal cycles and low travel speeds occur.
F	Arterial traffic flows at extremely low speeds, intersection congestion occurs with excessive delays, and backups from other locations restrict or prevent movement.

*Source: City of Chula Vista 2005*

The acceptable LOS for roads in Chula Vista is C, whereas the acceptable LOS for roads in the unincorporated County is D (City of Chula Vista 2013a; County of San Diego 2011). Caltrans aims to maintain LOS on its roads at the threshold between LOS C and LOS D (Caltrans 2002).

### Level of Service in the Project Area

The LOS and ADT volume for project area access roads with more than two lanes are presented in Table 4.14-4. ADT data were not available for most two-lane roads, other than Mackenzie Creek Road, San Miguel Road, Lakeshore Drive, and Sweetwater Road. ADT of these roads would be 9,100, 11,200, or 22,000 to meet the LOS C standard, based on the road type designation. It is assumed that the remainder of two-lane roads operate at LOS C or better because they have one or more of the following characteristics that suggest low levels of traffic:

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- Route caters to local traffic due to presence of nearby arterials meant to carry regional traffic
- Route provides access to a limited number of destinations, such as a few businesses or a small number of houses (e.g., 46 for Corte Anacapa)
- Route provides access to an area that has several alternative access points
- Most trips would occur in the morning and evening, such that traffic at other times would be very light

All roadways with current traffic counts are operating within acceptable LOS per Chula Vista, County of San Diego, or Caltrans standards (Table 4.14-4).

### Emergency Services Access

Multiple emergency service providers are located in the project area and vicinity. Emergency service providers that are likely to use the proposed access road network consist of the following:

- Ambulance services for the Sharp Chula Vista Medical Center
- Fire protection services from the Chula Vista Fire and from the Bonita-Sunnyside Fire Protection District
- Police services from the San Diego County Sheriff's Department, City of Chula Vista Police Department, and the California Highway Patrol

### 4.14.2 Regulatory Setting

#### Federal

There are no federal regulations regarding transportation and traffic that are relevant to the proposed project.

#### State

The Division of Transportation Planning within Caltrans is primarily responsible for the maintenance, development, and support of transportation facilities within the State. However, the Division of Transportation Planning partners with the County and City in planning, managing, and maintaining the transportation system. As policy, Caltrans aims to maintain LOS on its roads at the threshold between LOS C and LOS D (Caltrans 2002).

#### Local

##### San Diego County

*General Plan.* The acceptable LOS for roads in unincorporated part of the County is D (County of San Diego 2011). There are no relevant policies in the San Diego County General Plan. The region is exempt from state Congestion Management Program (CMP) requirements.

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**Table 4.14-4 Available LOS and ADT Volumes for Public Roadways to Access the Project Corridor**

Roadway	Roadway Classification in Applicable General Plan for Determining Acceptable Daily Volume for LOS	Existing Daily Volume (year) <sup>1,2</sup>	Acceptable Daily Volume for LOS C (Chula Vista, Caltrans) or LOS D (unincorporated San Diego County)	Within Acceptable LOS?
<b>Proposed Substation Access Roads</b>				
Birch Road	6-Lane Prime	11,084 (2011)	50,000	Yes
Eastlake Parkway	6-Lane Prime/	23,528 (2013)	50,000	Yes
	6-Lane Prime <sup>3</sup> /	32,766 (2013)	50,000	Yes
	6-Lane Major	9,030 (2011)	40,000	Yes
Hunte Parkway	6-Lane Prime/	1,976 (2011)	50,000	Yes
	4-Lane Major	12,651 (2010)	30,000	Yes
Olympic Parkway	6-Lane Prime	37,182 (2010)	50,000	Yes
Otay Lakes Road	6-Lane Prime	27,129 (2013)	50,000	Yes
SR-54	Freeway	96,000 (2012)	103,600	Yes
South Bay Expressway (SR-125)	Freeway	32,141 (2012)	79,200	Yes
<b>TL 6965, Eastlake Staging Yard, and TL 6910 Loop-In Access Roads</b>				
Birch Road	6-Lane Prime	11,084 (2011)	50,000	Yes
East H Street	4-Lane Major	17,831 (2010)	30,000	Yes
Eastlake Drive	Unclassified	9,893 (2005)	22,000	Yes
Eastlake Parkway	6-Lane Prime/	23,528 (2013)	50,000	Yes
	6-Lane Prime <sup>3</sup> /	32,766 (2013)	50,000	Yes
	6-Lane Major	9,030 (2011)	40,000	Yes
Hunte Parkway	6-Lane Prime/	1,976 (2011)	50,000	Yes
	4-Lane Major	12,651 (2010)	30,000	Yes
Lane Avenue	N/A (4 lanes with middle turn lane)	13,710 (2011)	21,400	Yes
Mackenzie Creek Road	N/A (2-lane suburban)	5,287 (2008)	9,100	Yes
Mountain Miguel Road	Class I Collector	12,282 (2010)	22,000	Yes
Olympic Parkway	6-Lane Prime	37,182 (2010)	50,000	Yes
Otay Lakes Road	6-Lane Prime	27,129 (2013)	50,000	Yes
Proctor Valley Road	6-Lane Prime/ 4-Lane Major	3,055 (2010)	22,000	Yes
South Bay Expressway (SR-125)	Freeway	32,141 (2012)	79,200	Yes

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Roadway	Roadway Classification in Applicable General Plan for Determining Acceptable Daily Volume for LOS	Existing Daily Volume (year) <sup>1,2</sup>	Acceptable Daily Volume for LOS C (Chula Vista, Caltrans) or LOS D (unincorporated San Diego County)	Within Acceptable LOS?
<b>Miguel Substation and Miguel Staging Yard Access Roads</b>				
Bonita Road	N/A (4-lane road)	13,800 (2010)	21,400	Yes
Briarwood Road	Community Collector with Improvement Options	27,600 (2010)	32,700	Yes
San Miguel Road	N/A (2-lane rural)	8,300 (2010)	11,200	Yes
SR-54	Freeway	96,000 (2012)	103,600	Yes
South Bay Expressway (SR-125)	Freeway	32,141 (2012)	79,200	Yes
Sweetwater Road	N/A (2-lane road with center turn lane)	9,200 (2010)	11,200	Yes
<b>Hunte Parkway and OTC Staging Yards Access Roads</b>				
Hunte Parkway	6-Lane Prime/ 4-Lane Major	1,976 (2011) 12,651 (2010)	50,000 30,000	Yes Yes
Discovery Falls	N/A (2-lane suburban)	1,044 (2007)	9,100	Yes
Crossroads Street	N/A (2-lane suburban)	Unavailable data <sup>4</sup>	9,100	Yes
Olympic Parkway	6-Lane Prime	37,182 (2010)	50,000	Yes
Eastlake Parkway	6-Lane Prime/ 6-Lane Prime <sup>3</sup> / 6-Lane Major	23,528 (2013) 32,766 (2013) 9,030 (2011)	50,000 50,000 40,000	Yes Yes Yes
SR-54	Freeway	96,000 (2012)	103,600	Yes
South Bay Expressway (SR-125)	Freeway	32,141 (2012)	79,200	Yes

Notes:

- <sup>1</sup> Where multiple segments of a road could be used, the traffic volume for the highest-volume segment is provided.
- <sup>2</sup> Data from listed years are considered to be an adequate characterization of existing conditions. A review of the development in the area revealed that development was the same or similar at the time of traffic counts as current development conditions for these roadways.
- <sup>3</sup> This segment of Eastlake Parkway is designated as a 4-lane major road in the Chula Vista General Plan. The segment currently has six lanes, however, and is therefore listed as a 6-lane major road and assigned the corresponding acceptable daily volume in this table.
- <sup>4</sup> ADT data was not available for Crossroads Street. It is assumed that Crossroads Street operates at LOS C because it caters to local traffic, provides access to a limited number of houses with several alternative access points, and because most trips would occur in the morning and evening. Crossroads Street is within the acceptable LOS.

Sources: City of Chula Vista 2005, Caltrans 2012, City of Chula Vista 2013b, County of San Diego 2011, and Rodrigue 2014

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**Municipal Code.** The following municipal code section is relevant to the proposed project:

- Article 9, Division 7: Construction Permits, Public Right-of-Way Permits
  - 129.0702(a) When a Public Right-of Way Permit is Required: A Public Right-of-Way Permit is required for any construction activity within a public right-of-way as required by Municipal Code Sections 54.0116 (Building Materials on Streets, Etc. – Warning Lantern Required) and 54.0117 (Work in Public Rights-of-Way – Barriers and Safety Precautions Required).

### **City of Chula Vista**

**General Plan.** The acceptable LOS for roads in Chula Vista is C (City of Chula Vista 2013a). There are no relevant policies in the City of Chula Vista General Plan.

**Municipal Code.** Several municipal code sections are relevant to the proposed project:

- Chapter 12.12: Street Obstructions
  - 12.12.010 Streets and Sidewalks—Damage Prohibited: It is unlawful for any person to use any of the streets and sidewalks within the corporate limits of the City for the purpose of transporting machinery or implements of any kind over, upon or across any of such streets or sidewalks without doing the same in such manner that the streets or sidewalks shall not be damaged.
- Chapter 12.16: Excavations
  - 12.16.010 Notice required: It is unlawful for any person to excavate or cause to be excavated any hole, trench or ditch in any street, alley or sidewalk within the City limits without first having notified either the department of public works of the city between the hours of 8:00 a.m. and 5:00 p.m., or the police department before 8:00 a.m. and after 5:00 p.m., of their intention to do so, stating the time and place and approximate duration of such excavation. Where the place of excavation is not specifically fixed by a franchise or permission, the place shall be designated by the director of public works or the superintendent of streets and the work done under the direction of such individual.
  - 12.16.040 Barricades and lights required: It is unlawful for any person to excavate or cause to be excavated any hole, trench or ditch in any street, alley or sidewalk within the City limits of the city without maintaining barricades on such hole, ditch or trench with adequate lights and other warnings to the public of the location of such hole, trench or ditch. All such excavations shall at all times be safely guarded against the possibility of persons, vehicles or animals or other property being injured by the same.
  - 12.16.050 Area to be refilled and replaced to original condition: All ditches, trenches or excavations shall be refilled and replaced, and the street, alley or sidewalk shall be placed in the same condition it was prior to such excavation, to the satisfaction of the department of public works.



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- Chapter 12.50: Temporary Placement of Signs in Designated Portions of the Public Rights-of-Way
  - 12.50.040 Permit Issuance: Except for signs allowed under Section VIII of City Council Policy 465-02 (Signage Associated with use of Public Property for Special Events), no sign shall be placed within any portion of the public right-of-way without first being issued a temporary public right-of-way sign permit from the City of Chula Vista.

### 4.14.3 Applicant Proposed Measures

SDG&E proposes to implement measures that would reduce environmental impacts. The following relevant APM is considered part of the proposed project (Table 4.14-5). The significance of the impact, however, is first considered prior to application of the APM and a significance determination is made. The implementation of the APM is then considered as part of the project when determining whether impacts would be significant and thus would require mitigation. This APM would be incorporated as part of any CPUC approval of the project, and SDG&E would be required to adhere to the APM as well as any identified mitigation measures. The APM is included in the MMRP for the project (refer to Section 9: Mitigation Monitoring and Reporting Plan of this Draft EIR), and the implementation of the measures would be monitored and documented in the same manner as mitigation measures.

**Table 4.14-5 Applicant Proposed Measures for Transportation and Traffic Impacts**

APM Number	Requirements
<b>APM TRANS-1: Steel Plating</b>	Steel plating will be placed over open trenches to maintain vehicular and pedestrian traffic across areas that are not under active construction.

### 4.14.4 Significance Criteria

Appendix G of the CEQA Guidelines (14 CCR 15000 *et seq.*) provides guidance on assessing whether a project will have significant impacts on the environment. Consistent with Appendix G of the CEQA Guidelines, a project would have significant impacts on transportation and traffic if the project would:

- a. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- b. Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

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- d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- e. Result in inadequate emergency access.
- f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.
- g. Result in inadequate parking capacity.

### 4.14.5 Environmental Impacts and Mitigation Measures

Transportation systems in the project area consist of highways, roadways, bike paths, and multi-modal transportation including cars, mass transit, bicycles, and mopeds. Because the proposed project would primarily result in changes to roadway traffic, roadway traffic is the main focus of the transportation resource section. Components of the project that would impact transportation resources include the number of personnel, as well as the volume of trucks transporting materials and wastes during the construction and operation phases.

#### Approach to Environmental Impact Assessment

Impacts to transportation and traffic resulting from implementation of the proposed project are provided in the following discussion. The impacts are considered for all project components, including short-term construction and long-term operational phases. The project would not introduce any new land uses or activities to the area that would generate long-term increases in traffic volume. Potential traffic increases would be limited to temporary significant construction-related activities associated with installation of the proposed project facilities.

#### Construction Trip Distance

The specific destinations for hauling materials to or from the construction areas are not known at this time; however, a number of construction material sources are located in the surrounding area. The Class 2 aggregate source location would ultimately depend on material availability, quality and cost at the time of construction. SDG&E anticipates that the primary source of Class 2 aggregate base material would be Vulcan Materials Co. located 6 miles from the substation site. The proposed secondary aggregate source is Reclaimed Aggregates located approximately 8.5 miles from the substation. The Otay Landfill is the proposed location for material disposal and is located approximately 8.7 miles from the substation. Construction worker trips are assumed to originate primarily from nearby communities.

It is assumed that project trucks and construction workers traveling to and from the project area would use existing state highways and local (City of Chula Vista) roads in the project vicinity. Traffic increases on these roads were estimated at the maximum possible impact with all maximum trips per day for each project element directed down the same road on the same day. This approach provides a very conservative assessment of potential impacts, because vehicles would actually most likely be distributed throughout the local road network, depending on the locations of work.

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### Impact Assessment

Table 4.14-6 provides a summary of the significance of potential impacts to transportation and traffic prior to application of APMs, after application of APMs and before implementation of mitigation measures, and after the implementation of mitigation measures.

**Table 4.14-6 Summary of Potential Impacts to Transportation and Traffic**

Significance Criteria	Project Phase	Significance Prior to APMS	Significance After APMS and Before Mitigation	Significance After Mitigation
Impact Traffic-1: Conflict with an applicable plan including a congestion management plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system or other standards, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit	Construction	Significant	Significant	Less than significant MM Traffic-1
	Operation and Maintenance	Less than significant	Less than significant	Less than significant
Impact Traffic-2: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks	Construction	Significant	Significant	Less than significant MM Traffic-2
	Operation and Maintenance	Less than significant	Less than significant	Less than significant
Impact Traffic-3: Potential to substantially increase hazards due to a design feature or incompatible uses	Construction	Significant	Significant APM REC-1 APM TRANS-1	Less than significant MM Traffic-3
	Operation and Maintenance	Less than significant	Less than significant	Less than significant
Impact Traffic-4: Result in inadequate emergency access	Construction	Significant	Significant	Less than significant MM Traffic-1 MM Traffic-4
	Operation and Maintenance	No impact	No impact	No impact
Impact Traffic-5: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	Construction	Significant	Significant	Less than significant MM Traffic-3
	Operation and Maintenance	Less than significant	Less than significant	Less than significant

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Significance Criteria	Project Phase	Significance Prior to APMS	Significance After APMs and Before Mitigation	Significance After Mitigation
Impact Traffic-6: Result in inadequate parking	Construction	Less than significant	Less than significant	Less than significant
	Operation and Maintenance	Less than significant	Less than significant	Less than significant

**Impact Traffic-1: Conflict with an applicable plan including a congestion management plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system or other standards, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit (*Less than significant with mitigation*)**

### Overview

The acceptable LOS for roads in Chula Vista is C, whereas the acceptable LOS for roads in the unincorporated parts of County is D (City of Chula Vista 2013a; County of San Diego 2011). Impacts would be significant if traffic associated with the project causes degradation of LOS to below the acceptable LOS standards. The amount of vehicle trips generated by project construction per day would not degrade LOS to below acceptable LOS standards.

### Construction

#### Proposed Substation

The proposed substation construction would generate traffic related to employee commutes, SDG&E and vendor deliveries, and inspections. The number of trips generated would fluctuate throughout the 18- to 24-month construction period. This analysis examines impacts during peak construction periods by using the maximum daily construction employee, truck, and delivery counts to evaluate a worst-case scenario. The maximum trips generated are shown in Table 4.14-7. There would be a maximum of ~~190~~ 202 trips per day during peak construction periods.

**Table 4.14-7 Maximum Trips Generated During Proposed Substation Construction**

Trip Source	Maximum Quantity of Vehicles	Trip Multiplier	Maximum Trips Per Day
Employee Commute	35 Employee Vehicles	2 one-way trips	70
Supply Trucks	27 Large Supply Trucks	2 one-way trips and Passenger Car Equivalent factor of 2 <sup>1</sup>	<del>108</del> <u>120</u>
Miscellaneous Deliveries and Inspections	6 Vehicles	2 one-way trips	12
<b>Maximum Total Trips</b>			<del>190</del> <u>202</u>

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Trip Source	Maximum Quantity of Vehicles	Trip Multiplier	Maximum Trips Per Day
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Note:

- <sup>1</sup> A Passenger Car Equivalent factor of 2 is applied to the truck trips because trucks represent a greater potential traffic impact. The increased impact is due to the greater length and slower acceleration of trucks compared to a passenger vehicle.

Traffic associated with the proposed substation construction would use state and local (City of Chula Vista) roads. Traffic increases on these roads were estimated at the maximum possible impact with all ~~190~~ 202 maximum trips per day directed down the same road on the same day. Maximum traffic impacts are shown in Table 4.14-8.

Table 4.14-8 shows that the traffic from the proposed substation would not cause LOS to approach or exceed acceptable LOS or acceptable daily volume on any road segment based on the available capacity outlined in Table 4.14-4. For the residential, two-lane streets without available traffic counts, it is assumed that current ADT volumes are within acceptable LOS limits. The addition of 190 202 project trips per day would not cause traffic delays that would degrade LOS because traffic currently flows unimpeded on these streets. Impacts would be less than significant, and no mitigation would be required.

**Table 4.14-8 Effects on LOS During Salt Creek Substation Construction**

Road Segment	Existing Traffic Volume (cars per day)	Traffic Volume During Construction (LOS)	Acceptable Daily Volume	Within Acceptable LOS?
Birch Street	11,084	<del>11,274</del> <u>11,286</u>	50,000	Yes
Eastlake Parkway (south of Olympic Parkway)	23,528 (6-Lane Prime)	<del>23,718</del> <u>23,730</u>	50,000	Yes
	9,030 (6-Lane Major)	<del>9,220</del> <u>9,232</u>	30,000	Yes
Hunte Parkway (south of Olympic Parkway)	1,976	<del>2,166</del> <u>2,178</u>	50,000	Yes
Olympic Parkway	37,182	<del>37,372</del> <u>37,284</u>	50,000	Yes
Otay Lakes Road	27,129	<del>27,139</del> <u>27,331</u>	50,000	Yes
SR-54	96,000	<del>96,190</del> <u>96,202</u>	106,600	Yes
South Bay Expressway (SR-125)	32,141	<del>32,331</del> <u>32,343</u>	79,200	Yes

### TL 6965

TL 6965 construction would generate traffic from employee commutes, SDG&E and vendor deliveries, and inspections. Trips generated would fluctuate throughout the 8- to 12-month construction period of TL 6965. This analysis examines impacts during peak construction periods using the maximum daily construction employee, truck, and delivery counts. Trips

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generated from construction of TL 6965 are shown in Table 4.14-9. There would be a maximum of 162 trips per day during peak construction periods.

**Table 4.14-9 Maximum Trips Generated During TL 6965 Construction**

Trip Source	Maximum Quantity of Vehicles	Trip Multiplier	Maximum Trips Per Day
Employee Commute	51 Employee Vehicles	2 one-way trips	102
Supply Trucks	30 Large Supply Trucks	2 one-way trips Passenger Car Equivalent factor of 2 <sup>1</sup>	60
<b>Total Trips</b>			<b>162</b>

Note:

<sup>1</sup> A Passenger Car Equivalent factor of 2 is applied to the truck trips because they represent a higher potential traffic impact. The increased impact is due to greater length and slower acceleration of trucks compared to a passenger vehicle.

The majority of project trips associated with TL 6956 construction would use the roadways listed in Table 4.14-10. The roadways cross and/or provide access to the transmission line corridor. Trips would concentrate on roadways providing access to the active construction area along the corridor. Traffic increases on each road would therefore depend on where active construction is occurring. Traffic increases on roads during TL 6965 construction were estimated at the maximum possible impact with all 162 maximum trips directed toward any one active construction area on the same day. Maximum traffic impacts are shown in Table 4.14-10.

Table 4.14-10 shows that the traffic from TL 6965 construction would not cause operation on any road segment to violate acceptable LOS criteria. For the residential, two-lane streets without available traffic counts, it is assumed that current ADT volumes are within acceptable LOS limits. The addition of 160 daily project trips would not cause traffic delays that would degrade LOS because traffic flows unimpeded on these streets. Impacts would be less than significant because the traffic would not exceed designated LOS, and no mitigation would be required.

**Table 4.14-10 Effects on LOS due to TL 6965 and TL 6910 Loop-In Construction**

Road Segment	Existing Traffic Volume (cars per day)	Traffic Volume During Construction (LOS)	Acceptable Daily Volume for LOS C	Within Acceptable LOS?
Birch Road	11,084	11,246	50,000	Yes
East H Street	17,831	17,993	30,000	Yes
Eastlake Drive	9,893	10,055	22,000	Yes
Eastlake Parkway	23,528	23,690	50,000	Yes
	32,766	32,928	50,000	Yes
	9,030	9,192	40,000	Yes
Hunte Parkway	1,976	2,138	50,000	Yes
	12,651	12,813	30,000	Yes

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Road Segment	Existing Traffic Volume (cars per day)	Traffic Volume During Construction (LOS)	Acceptable Daily Volume for LOS C	Within Acceptable LOS?
Lakeshore Drive	7,706	7,868	9,100	Yes
Lane Avenue	13,710	13,872	21,400	Yes
Mackenzie Creek Road	5,287	5,449	9,100	Yes
Mountain Miguel Road	12,282	12,444	22,000	Yes
Olympic Parkway	37,182	37,344	50,000	Yes
Otay Lakes Road	27,129	27,291	50,000	Yes
Proctor Valley Road	3,055	3,217	22,000	Yes
Wueste Road	No Count	N/A	22,000	Yes <sup>1</sup>
South Bay Expressway (SR-125)	32,141	32,303	79,200	Yes

Note:

<sup>1</sup> The addition of 162 daily project trips (worst case) would represent 1.7 percent or less of all trips per day on these roadways, given the assumption that current ADT volumes are below 9,100 or 22,000 vehicles (dependent on classification) on these roadways, as previously explained.

SDG&E proposes to string conductor across SR-125 at two locations, which would require temporarily closing SR-125 at both locations. SDG&E may also install temporary guard structures on either side of the highway with netting under the conductor stringing area. Closures of SR-125 for conductor stringing and installation of guard structures would cause temporary interruption of traffic flow on the highway. These temporary closures would potentially cause a significant impact on traffic if the closure occurred during peak and daytime traffic hours. Mitigation Measure Traffic-1 would reduce impacts from closure of SR-125 during stringing or guard structure installation by limiting the closure to non-peak hours. The impact from highway closures would be less than significant with mitigation.

SDG&E must obtain an encroachment permit from Caltrans for its work in the highway ROW. The encroachment permit may contain additional measures to further reduce impacts to traffic.

### Miguel Substation Modifications

Construction at Miguel Substation would generate traffic from employee commutes, SDG&E and vendor deliveries, and inspections. Trips generated would vary throughout the 5-month construction period at Miguel Substation and during the 12- to 18-month construction period of TL 6965 when Miguel Substation would be used for staging and helicopter operations. This analysis uses the maximum daily construction employee, truck, and delivery counts to examine impacts during peak construction periods. Trips generated are shown in Table 4.14-11. There would be a maximum of 186 trips per day during peak construction periods.

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**Table 4.14-11 Maximum Trips Generated During Miguel Substation Construction**

Trip Source	Maximum Quantity of Vehicles	Trip Multiplier	Maximum Trips Per Day
Employee Commute	33 Employee Vehicles	2 one-way trips	66
Supply Trucks	27 Large Supply Trucks	2 one-way trips Passenger Car Equivalent factor of 2 <sup>1</sup>	108
Miscellaneous Deliveries and Inspections	6 Vehicles	2 one-way trips	12
<b>Maximum Total Trips</b>			<b>186</b>

Note:

<sup>1</sup> A Passenger Car Equivalent factor of 2 is applied to the truck trips because they represent a higher potential traffic impact. The increased impact is due to greater length and slower acceleration of trucks compared to a passenger vehicle.

The majority of project trips associated with Miguel Substation construction activities would use the roadways listed in Table 4.14-12. These roadways provide access to Miguel Substation. Traffic increases on roads during Miguel Substation construction activities were estimated at the maximum possible impact with all 186 trips directed down the same road on the same day. Maximum traffic impacts are shown in Table 4.14-12.

**Table 4.14-12 Effects on LOS Due to Miguel Substation Construction-phase Activities**

Road Segment	Existing Traffic Volume (cars per day)	Traffic Volume During Construction (LOS)	Acceptable Daily Volume for LOS C	Within Acceptable LOS?
Bonita Road	13,800	13,986	21,400	Yes
Briarwood Road	27,600	27,786	32,700	Yes
San Miguel Road	8,300	8,486	11,200	Yes
SR-54	96,000	96,186	103,600	Yes
South Bay Expressway (SR-125)	32,141	32,327	79,200	Yes
Sweetwater Road	9,200	9,386	11,200	Yes

Table 4.14-12 shows that the traffic from Miguel Substation construction-phase activities would not cause operation to violate acceptable LOS criteria on any road segment. Impacts would be less than significant, and no mitigation would be required.

### Combined Traffic Impacts

Some construction activities may occur concurrently, causing traffic impacts from multiple project elements to occur on the same roadways. Miguel Substation is located approximately 4.6 miles from the proposed substation; the only potential for overlap of construction vehicle traffic is on SR-125. It is possible that construction traffic from the proposed substation and TL 6965



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could overlap during brief time periods on roads that could be used to access both project element construction areas. There would be a potential for ~~352~~ ~~364~~ trips per day to occur when traffic from proposed substation construction (~~190~~ ~~202~~ trips per day) and TL 6965 construction (162 trips) occur concurrently. It is also possible that construction traffic from Miguel Substation and TL 6965 projects could overlap. There would be a potential for 348 trips per day to occur when traffic from Miguel Substation construction (186 trips per day) and TL 6965 construction (162 trips) occur concurrently. Combined traffic impacts are shown in Table 4.14-13.

Table 4.14-13 shows that the overlapping traffic from various construction activities would not cause operation on any road segment to violate acceptable LOS criteria. Impacts would be less than significant, and no mitigation would be required.

### Operation and Maintenance

Operation and maintenance of the proposed project would result in negligible traffic impacts. The maintenance activity level would be far below that of construction, as routine inspections and maintenance consist of two vehicles traveling to the site seven times per year, and maintenance would happen periodically, as needed (refer to Section 2.8 of the Project Description). Operations would involve daily or weekly trips of one vehicle to the proposed substation. Added traffic volumes during operation and maintenance would therefore be negligible and far lower than added traffic volumes during construction. No road closures are planned for activities during operation and maintenance. Impacts to traffic circulation would be less than significant. No mitigation would be required.

**Table 4.14-13 Effects on LOS due to Combined Traffic Impacts**

Road Segment	Existing Traffic Volume (cars per day)	Traffic Volume During Construction (LOS)	Acceptable Daily Volume for LOS C	Within Acceptable LOS?
<b>Miguel Substation and TL 6965</b>				
South Bay Expressway (SR-125)	32,141	32,493	79,200	Yes
<b>Proposed Substation and TL 6965</b>				
Birch Road	11,084	11,432	50,000	Yes
Eastlake Parkway	23,528	23,876	50,000	Yes
	32,766	33,114	50,000	Yes
	9,030	9,378	40,000	Yes
Olympic Parkway	37,182	37,530	50,000	Yes
Otay Lakes Road	27,129	27,477	50,000	Yes
South Bay Expressway (SR-125)	32,141	32,489	79,200	Yes

Note:

<sup>1</sup> The addition of 348 project trips per day (worst case) would represent 3.8 percent or less of all trips per day on these roadways, given the assumption that current ADT volumes are below 9,100, 11,200, or 22,000 vehicles (dependent on classification) on these roadways, as previously explained.

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### Mitigation Measure: Traffic-1

**Mitigation Measure Traffic-1:** SDG&E shall prepare and submit to Caltrans a Highway Closure Plan as part of the encroachment permit application at least 30 days prior to initiating installation of crossings of SR-125. The plan shall require that closure or partial closure of SR-125 be limited to off-peak, non-daytime hours, from 10 p.m. to 5 a.m., and that signage be posted prior to the closure to alert drivers of the closure in accordance with Caltrans requirements. Highway closure times will be reviewed and approved by Caltrans to minimize delay to SR-125 traffic. The plan shall also outline suggested detours for SR-125 traffic, including routes and signage. SDG&E shall provide evidence of Caltrans approval of the plan to CPUC at least 15 days prior to initiating installation of the crossings. No work shall begin in Caltrans right-of-way until the encroachment permit and Highway Closure Plan are approved by Caltrans.

Significance after Mitigation: Less than significant.

Impact Traffic-2: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks (*Less than significant with mitigation*)

### Construction

#### Proposed Substation and Miguel Substation Modifications

Structures at the substations would not encroach on airspace because all components would be below the level of nearby building rooftops. The proposed substation and Miguel Substation construction would not require use of helicopters. There would be no impact related to air traffic patterns, traffic levels, or change in location that would result in substantial safety risks.

#### TL 6965

Small cranes would be used to install some poles, which may trigger FAA notification requirements due to the height of the cranes. There is a potential for construction to exceed a 100:1 imaginary surface (as described in CFR Title 14, Part 77) from the Brown Field runway at poles if tall cranes are used. For example, at pole 5, if a crane taller than 78 vertical feet is used for pole installation, FAA notification would be required. Exceeding the imaginary surface for temporary use of the crane would not be significant because SDG&E would comply with notification requirements under CFR Title 14, Part 77, should construction activities trigger notification.

A light or medium-lift construction helicopter would be used during installation of the overhead conductor cable on TL 6965. Helicopter operation would occur during standard daytime construction hours for approximately 5 hours per day over a 4-day period (see schedule in Section 2.7.13 of the Project Description). The use of one helicopter in the area over four days would be a negligible increase in air traffic. SDG&E would coordinate with air traffic control and other applicable agencies before using helicopters.

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It is not anticipated that helicopters would carry loads over occupied structures; however, helicopters would be used within 1,500 feet of residences and as close as 15 feet from residences. If flights were to be conducted over congested areas, carrying of loads over these areas could pose a potentially significant hazard to people. Per Mitigation Measure Traffic-2, helicopter contractors would coordinate helicopter activities with the FAA. Flight plans are required by the FAA for flights over congested areas. If the flight patterns for the project meet the criteria for congested areas, a Helicopter Lift Plan would be prepared. Impacts to air traffic patterns would be less than significant with mitigation.

### Operation and Maintenance

None of the proposed poles would require FAA notification under CFR Title 14, Part 77. There would be no impacts to airspace. Approximately two aerial (helicopter) inspections would take place annually in conjunction with the inspections for the existing transmission lines. These helicopter flights would not have a significant impact on the volume of air traffic or safety in the area. Impacts would be less than significant, and no mitigation would be required.

### Mitigation Measures: Mitigation Measure Traffic-2

**Mitigation Measure Traffic-2:** Prior to construction, helicopter contractors shall coordinate helicopter activities for the project with the FAA and obtain any required approvals to conduct work in the airport airspace. Helicopter contractors shall provide the CPUC with all required approvals, documents, and conditions of work prior to conducting helicopter activities for the project.

The helicopter operator would prepare and implement a Helicopter Lift Plan, coordinate with the regional FAA office, and obtain approval for the helicopter operations for all routes within 1,500 feet of residences or that would cross over “congested areas” as described in 14 CFR 133.33.

**Significance after Mitigation:** Less than significant.

**Impact Traffic-3:** Potential to substantially increase hazards due to a design feature or incompatible uses (*Less than significant with mitigation*)

### Construction

Construction activities could result in hazards due to changes in traffic flow and damage to roadways. Construction of distribution lines in Hunte Parkway would require temporary lane closures on Hunte Parkway, which would temporarily disrupt normal traffic flow. Construction vehicles exiting and entering construction areas could slow and disrupt traffic flow on streets. Finally, road damage may occur in areas of heavy construction vehicle use such as entry points and roads near staging yards, which can result in hazardous road conditions. The lane closures, construction vehicles, and road damage would increase hazards and result in a significant impact. Mitigation Measure Traffic-3 would reduce traffic safety hazards by requiring implementation of a Transportation Management Plan (TMP) plan that includes traffic control devices for egress and ingress of construction vehicles and equipment, procedures during lane

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and road closures, and a measure to avoid and repair road damage. Impacts would be less than significant with implementation of Mitigation Measure Traffic-3.

Construction traffic would access the substation site by crossing Hunte Parkway Trail. The proposed underground distribution lines would also cross Hunte Parkway Trail. Construction vehicles and equipment would use unpaved access roads in the transmission corridor to access TL 6965 work areas. The unpaved access roads in the transmission corridor are used by pedestrians and bicyclists. Use of these routes by heavy equipment and vehicles would pose a hazard to pedestrians and bicyclists, resulting in a significant impact. SDG&E would provide temporary detours where feasible per APM REC-1. When a detour is not feasible, the access road would be closed and signs would be posted to alert trail users of the closure. SDG&E would also implement APM TRANS-1, which requires placement of steel plating over open trenches. Impacts from road closures and detours could still present a significant hazard to pedestrians and bicyclists after implementation of the APMs. Mitigation Measure Traffic-3 requires using flaggers and implementing safety practices, including signage, to reduce potential hazards to pedestrians and bicyclists using trails or roads in the construction area. Impacts would be less than significant with mitigation.

### Operation and Maintenance

Operation and maintenance would not involve changes to roadway design. None of the poles would be placed immediately adjacent to roadways or in a location where they would cause a traffic hazard. There would be no traffic hazard impacts related to project or roadway design.

SDG&E would routinely inspect and maintain the proposed project, which would involve ground inspections by vehicle. Vehicles may use roads that are also used by pedestrians and bicyclists. Inspection and maintenance activities would be low-intensity consisting of no more than a few vehicles at a time. The low level of traffic would not pose a substantial hazard to pedestrians and bicyclists on access roads in the project area, and impacts would be less than significant.

### Mitigation Measures: Traffic-3

**Mitigation Measure Traffic-3:** SDG&E shall develop and implement a project-specific Transportation Management Plan (TMP) to be implemented during construction. SDG&E shall submit the plan to CPUC for review and approval at least 30 days prior to construction. The TMP shall conform to the *California Joint Utility Traffic Control Committee's Work Area Protection and Traffic Control Manual*. The TMP shall include provisions for the following:

- Implementation of standard safety practices, including installation of appropriate barriers between work zones and transportation facilities, placement of appropriate signage, and use of traffic control devices.
- Use of flaggers and/or signage to guide vehicle through or around construction zones using proper techniques for construction activities.

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- Storage of all equipment and materials in designated work areas in a manner that minimizes traffic obstructions and maximizes sign visibility.
- Limiting of vehicles to safe speed levels according to posted speed limits, road conditions, and weather conditions.
- Coordination with public transit provider.
- Routing of trucks to avoid minor roads, where possible, to reduce congestion and potential asphalt damage.
- Repair of asphalt and other road damage (e.g., curb and gutter damage, rutting in unpaved roads) caused by construction vehicles.
- Detours for cyclists and pedestrians when bike lanes or sidewalks must be closed.
- Abiding by encroachment permit conditions, which shall supersede conflicting provisions in the TMP.

Significance after Mitigation: Less than significant.

**Impact Traffic-4: Result in inadequate emergency access (*Less than significant with mitigation*)**

### Construction

Construction activities would result in temporary closure of SR-125. Closure of SR-125 could result in disruptions to emergency vehicle traffic and significantly impact emergency access. Substation deliveries and distribution line construction would require single lane closures on Hunte Parkway. The lane closure would not impact emergency access as emergency vehicles could travel around the work areas in an emergency. Mitigation Measure Traffic-4 would be implemented to reduce impacts by requiring advance notice to emergency services. Notice would allow emergency services agencies to plan alternate routes for use during the temporary road closure. Mitigation Measure Traffic-1 would limit SR-125 closure times and require detour planning. Impacts would be less than significant with mitigation.

### Operation and Maintenance

Routine operation and maintenance of the proposed project would not involve full road closures. After construction, emergency access would be restored to baseline conditions. Impacts to emergency access would not occur.

**Mitigation Measures: Traffic-1 and Traffic-4**

**Mitigation Measure Traffic-4:** SDG&E shall notify local emergency personnel (i.e., fire departments, police departments, and ambulance services) at least 1 week prior to a road closure. The notice shall include date(s), time(s), and duration of closure(s), and a contact number for SDG&E project personnel.

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**Significance after Mitigation: Less than significant.**

**Impact Traffic-5: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities (*Less than significant with mitigation*)**

### Construction

Construction activities and traffic may occur on routes that are also used for public transit, bicycle travel (including bike lanes), and pedestrian travel.

Ingress, egress, and lane closure could affect pedestrian and bicycle travel on sidewalks and in bike lanes. These impacts to bicycle or pedestrian facilities would be a significant impact. Mitigation Measure Traffic-3 would require preparation and implementation of a TMP that would provide for safe alternatives for bicyclists and pedestrians when such routes are affected by construction activities and would impede bicyclist and pedestrian movement. Impacts to pedestrian and bicycle travel on sidewalks and bike lanes would be less than significant with mitigation.

Ingress and egress to the TL 6965 corridor could affect two SDMTS bus stops on Eastlake Parkway. The stop for westbound buses is located on Eastlake Parkway directly west of the TL 6965 corridor, and the stop for eastbound buses is located on Eastlake Parkway, directly east of the TL 6965 corridor. Both bus stops are located directly adjacent to unpaved routes that provide access to the TL 6965 corridor. Construction access would be located directly adjacent to the bus stops, potentially requiring temporary closure of the bus stops to prevent injury to bus stop users. The impact from temporary closure of the bus stops would not be significant because there are alternative bus stops within 1,300 feet of the affected bus stops and because the potential closure would be short-term. Impacts would be less than significant, and no mitigation would be required.

Ingress and egress of construction equipment and vehicles could potentially affect the use of bicycle lanes. Olympic Parkway, Eastlake Parkway, and Mountain Miguel Road would be used to access the transmission corridor, while Hunte Parkway would be used to access the transmission corridor and the proposed substation area. These four roads contain City-designated bike lanes that are signed and striped in the street. Equipment and large vehicle ingress and egress could reduce the safety of bike lanes on these roads, resulting in a significant impact. Mitigation Measure Traffic-3 would require a TMP, which would specify measures to ensure safe vehicle ingress and egress, such as having flag men to halt bicycle traffic during truck ingress and egress. Impacts would be less than significant with mitigation.

### Operation and Maintenance

SDG&E would routinely inspect and maintain the proposed project, which would involve ground inspections by vehicle. Inspections would not require closure or relocation of bus stops. Vehicles would enter and leave the transmission corridor by crossing designated bike lanes on Olympic Parkway, Eastlake Parkway, Hunte Parkway, and Mountain Miguel Road. Operation and maintenance activities of TL 6965 and the proposed substation would be infrequent, totaling fewer than 10 times per year. Inspection and maintenance activities would be low-

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intensity, consisting of no more than a few vehicles at a time. Such activities would not disrupt normal use of bicycle lanes. Impacts to bicycle lanes would therefore be less than significant.

**Mitigation Measures: Traffic-3**

**Significance after Mitigation: Less than significant.**

**Impact Traffic-6: Result in inadequate parking (*Less than significant; no mitigation required*)**

### Construction

Vehicles would be parked in designated work areas and staging yards during construction. SDG&E has designed work areas and staging yards to accommodate worker vehicles. There is no street parking adjacent to the proposed substation or Miguel Substation. Worker vehicles may be parked temporarily on the street when accessing power line work areas. Few work areas are near streets with street parking; streets with parking include Corte Anacapa, Crossroads Street, and Windingwalk Street. Workers may park personal vehicles on these streets when construction is occurring nearby. Crews parking on the streets would be limited due to the small size of crews, because most parking would take place at staging areas, and because of the short length of time that crews would be at any one location. There would not be new impacts to the environment from establishing additional parking. Impacts to street parking would be less than significant.

Fourteen off-street parking spaces would be temporarily unavailable during construction activities at pole 24. Construction at this location would take less than one week, and there is abundant parking on the street to compensate for the temporary loss of parking. Impacts would be less than significant. No mitigation would be required.

### Operation and Maintenance

The installation of pole 24 would result in permanent removal of three parking spaces from an off-street parking lot with 229 existing parking spaces (222 regular spaces and 7 disabled spaces) currently serving 67,570 square feet of office space shared by 10 commercial buildings (City of Chula Vista 2006). Chula Vista Municipal Code Chapter 19.62 and Eastlake II Sectional Planning Area Plans both state that the parking requirements for business and professional office buildings used for administrative and professional services is a minimum of one space per 300 square feet of gross floor area. Removal of three parking spaces would reduce the number of parking spaces from 229 to 226. A minimum of 226 spaces are required to comply with Chula Vista Municipal Code. The project would therefore not cause parking to be reduced below the minimum required to meet City parking standards. Impacts would be less than significant.

**Mitigation Measures: None required.**

### 4.14.6 Project Alternatives

Table 4.14-14 provides a summary of the potential impacts to transportation and traffic from the proposed project alternatives.

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**Table 4.14-14 Summary of Impacts from Alternatives by Significance Criteria**

Significance Criteria	No Project Alternative	Alternative 1	Alternative 2	Alternative 3
Impact Traffic-1: Conflict with an applicable plan including a congestion management plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system or other standards, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit	Less than significant	Less than significant	Less than significant	Less than significant with mitigation MM Traffic-Alt 3-1
Impact Traffic-2: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks	No impact	No impact	No impact	No impact
Impact Traffic-3: Potential to substantially increase hazards due to a design feature or incompatible uses	Less than significant	Less than significant with mitigation APM REC-1, APM TRANS-1 MM Traffic-3	Less than significant with mitigation APM REC-1, APM TRANS-1 MM Traffic-3	Less than significant with mitigation APM REC-1, APM TRANS-1 MM Traffic-3
Impact Traffic-4: Result in inadequate emergency access	Less than significant	Less than significant	Less than significant	Less than significant with mitigation MM Traffic-4
Impact Traffic-5: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities	Less than significant	Less than significant with mitigation MM Traffic-3	Less than significant with mitigation MM Traffic-3	Less than significant with mitigation MM Traffic-3, MM Traffic-Alt 3-2
Impact Traffic-6: Result in inadequate parking	No impact	No impact	No impact	No impact

### Alternative 1: 230/12-kV Substation and 230-kV Loop-in

#### Environmental Setting

The environmental setting for this alternative is described in Section 4.14.1. This alternative would involve construction of a 230/12-kV substation within the SDG&E fee-owned parcel south of Hunte Parkway.



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### Impacts and Mitigation Measures

Impacts from construction of a 230/12-kV substation south of Hunte Parkway would be similar to the impacts from construction of the proposed 69/12-kV substation. This alternative would involve increased traffic on Hunte Parkway during project construction. The magnitude of the daily increase in vehicle trips would be similar to the proposed project and would be less than significant. Alternative 1 would require greater truck trips associated with import of soils. The net import for the Alternative 1 substation would be 109,350 CY of fill compared to 21,570 CY of fill for the proposed project.

Alternative 1 would require lane closures on Hunte Parkway and impacts to the curb and gutter at the existing sewer access road entry to Hunte Parkway to facilitate large construction vehicle access and for underground trenching of the distribution circuits. The 230/12-kV substation would be larger than the proposed substation and would have a longer construction timeframe of approximately 24 to 30 months compared to the estimated 18 to 24 months for the proposed project. The longer construction timeframe would result in a longer duration of road and bike lane closures along Hunte Parkway adjacent to the substation. The impacts from road closure and road damage would be significant. These impacts would be reduced by Mitigation Measures Traffic-3. Mitigation Measure Traffic-3 requires preparation of a TMP, which would include detours for cyclists and pedestrians, flaggers, safety procedures, and repairs to road damage. Impacts to traffic would be less than significant with mitigation.

Similar to the proposed project, construction traffic would use Hunte Parkway Trail and unpaved routes in the transmission corridor that are used by pedestrians and bicyclists, posing significant hazards to pedestrians and bicyclists. APM REC-1 requires SDG&E to provide temporary trail detours, and APM TRANS-1 requires placement of steel plating over trenches; however, impacts would still be significant. Implementation of Mitigation Measure Traffic-3 would reduce traffic hazard impacts to less than significant.

This alternative does not include modifications to the Miguel Substation or construction of a new power line. Impacts to traffic and transportation from construction of the proposed power line, including use of Eastlake and Miguel Substation staging yards, would be avoided. There would be no impact to air traffic because no helicopters would be used during construction of the 230/12-kV substation.

Traffic impacts from operation and maintenance of Alternative 1 would be similar to those for the proposed project substation. Neither the proposed project nor Alternative 1 would cause a substantial increase in traffic or cause significant traffic hazards. Similar to the proposed project, Alternative 1 would require a minimal amount of trips for substation maintenance. The impact from operation and maintenance would be less than significant.

### Alternative 2: 69/12-kV Substation and Generation at Border and Larkspur Electric Generating Facilities

#### Environmental Setting

The environmental setting for Alternative 2 is described in Section 4.14.1. Alternative 2 would involve construction of a substation, distribution lines, and TL 6910 loop-in the same manner as

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the proposed project. The environmental setting for TL 6965 and Miguel Substation would not apply to this alternative.

### **Impacts and Mitigation Measures**

Impacts to traffic and emergency access along Hunte Parkway from Alternative 2 would be the same as the proposed project during construction of the 69/12-kV substation because Alternative 2 involves construction of the proposed substation, including 12-kV distribution lines. Substation construction would result in significant impacts from lane closure, emergency access, traffic hazards, and road damage at the entrance to the substation. These impacts would be reduced by APMs REC-1 and TRANS-1; however, impacts would still be significant. Impacts would be reduced with implementation of Mitigation Measure Traffic-3. Impacts would be less than significant with mitigation.

Electric generation at Border and LEF would not result in traffic impacts because the electric generating facilities currently exist and currently provide power to SDG&E under existing conditions. There would be no impacts to traffic from use of those resources.

Alternative 2 does not include modifications to the Miguel Substation or construction of a new power line. Impacts to traffic and transportation from construction of the proposed 69-kV power line, including use of Eastlake and Miguel Substation staging yards, would be avoided. There would be no impact to air traffic because no helicopters would be used during construction of the 69/12-kV substation.

Traffic impacts from operation and maintenance of Alternative 2 would be similar to those for the proposed project; however, this Alternative would not generate any traffic associated with maintenance of Miguel Substation or TL 6965. Similar to the proposed project, Alternative 2 would require a minimal amount of trips for maintenance. Neither the proposed project nor Alternative 2 would cause a substantial increase in traffic in the project area or cause traffic hazards.

### **Alternative 3: 69/12-kV Substation and Underground 69-kV Power Line within Public ROW**

#### **Environmental Setting**

The environmental setting for Alternative 3 is described in Section 4.14.1. The road network described for the proposed substation and Hunte Parkway and OTC staging yards would apply to this alternative. Alternative 3 also involves construction of an underground power line. The road network to access the underground power line construction area includes:

- Eastlake Parkway
- Hunte Parkway
- Mount Miguel Road
- Olympic Parkway
- Otay Lakes Road
- Proctor Valley Road

The existing conditions for these roads are described in Section 4.14.1.

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### Impacts and Mitigation Measures

Construction-related traffic impacts of Alternative 3 would be greater than the proposed project. Like the proposed project, Alternative 3 would cause traffic delays and may impede bicycle and pedestrian movement along Hunte Parkway; however, unlike the proposed project, Alternative 3 would require additional lane and potentially road closures and detours for the construction and installation of the underground power line. There would be no impacts to traffic and emergency access on SR-125 because no new overhead power line would be installed between Miguel Substation and the proposed substation site.

**69/12-kV Substation.** Impacts to traffic and emergency access from construction of the 69/12-kV substation would be the same as the impacts from construction of the proposed project substation because Alternative 3 would involve construction of the proposed substation. Impacts would be reduced with implementation of APMs REC-1 and TRANS-1; however, impacts would still be significant. Implementation of Mitigation Measures Traffic-3 would reduce impacts. Impacts would be less than significant with mitigation.

**69-kV Underground Power Line.** Construction of the 69-kV underground power line in public roadways would necessitate temporary partial or full road closures and temporary road crossing and intersection closures during open trench construction of the duct package and vaults. Temporary road closures and crossing closures would occur on approximately 5 miles of roads including the following:

- 0.6 mile of Mount Miguel Road from Miguel Substation to Proctor Valley Road
- 1 mile of Proctor Valley Road from Mount Miguel Road to Hunte Parkway
- 3.5 miles of Hunte Parkway from Proctor Valley Road to the substation

The underground trench would be approximately three feet wide and six or more feet deep, and the work area would be approximately 16 feet wide along the underground duct package. The underground duct packages would require closure of at least one lane for construction access, trenching, and duct bank construction. The vaults would require a work area 30 feet wide at roughly 30 locations along the route. Vault construction would require a work area larger than a single lane and may require closure of one side of the road or full road closure on Mountain Miguel Road. The underground construction would take approximately 10 to 13 months to complete. The lane closures, and potential road closures and detours would result in traffic delays on roads that would not be affected under the proposed project. The number of truck trips would be roughly the same as for the construction of the proposed TL 6965. Residents and travelers on Hunte Parkway, Proctor Valley Road, and Mountain Miguel Road would experience traffic delays during underground construction. Impacts to emergency access and potential temporary delays would be significant. Mitigation Measure Traffic-4 would reduce impacts to emergency access from traffic delays. Mitigation Measure Traffic-Alt 3-1 would restrict lane closures to off-peak hours. Restricting lane closures to off-peak hours would ensure that traffic delays are not experienced during peak traffic to minimize impacts to traffic and transportation. Impacts would be less than significant with mitigation.

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**Mitigation Measure Traffic-Alt 3-1:** SDG&E shall restrict all necessary lane closures or obstructions on major roadways associated with overhead or underground construction activities to off-peak periods in congested areas to reduce traffic delays. Lane closures must not occur between 6:00 and 9:30 a.m. and between 3:30 and 6:30 p.m., unless otherwise directed in writing by the responsible public agency issuing an encroachment permit.

Construction along Proctor Valley Road would also cause additional impacts to bicycle lanes and sidewalks. Construction of the Alternative 3 underground power line could cause closure of bike lanes, pedestrian walkways, and bus stops and affect bus routes, which would be a significant impact. Mitigation Measure Traffic-3 requires a TMP, including flaggers and implementation of detours for bicyclists and pedestrians. Mitigation Measure Traffic-Alt 3-2 requires SDG&E to notify the school district and SDMTA regarding potential bus stop closures and reroutes. Impacts to public transit facilities would be less than significant with mitigation.

**Mitigation Measure Traffic-Alt 3-2:** SDG&E shall consult with the City of Chula Vista School District at least one month prior to construction to coordinate construction activities adjacent to school bus routes and stops. If necessary, SDG&E shall accommodate the temporary relocation of school bus stops until construction in the vicinity is complete. SDG&E will also consult with the City of SDMTS at least one month prior to construction to reduce potential interruption of transit services and relocate bus stops, if necessary.

Traffic impacts from operation and maintenance of Alternative 3 would be similar to those for the proposed project. In addition, maintenance of the underground power line could require lane closures to access the buried pipeline within the roadway. These lane closures would typically be short in duration and would not have a significant impact on traffic flow or safety. SDG&E would also implement their standard practices for traffic control associated with maintenance of underground power and distribution lines. Similar to the proposed project, Alternative 3 would require a minimal amount of trips for maintenance. Neither the proposed project nor Alternative 3 would cause a substantial increase in traffic in the project area or cause traffic hazards. Impacts would be less than significant.

The underground power line would be buried and would not result in the loss of any parking spaces. There would be no impact to parking from this alternative.

#### No Project Alternative

Under the No Project Alternative, SDG&E would meet energy needs of the southeast Chula Vista area by adding two additional transformer banks at the Proctor Valley Substation and installing additional distribution circuits in the Otay Ranch area. None of the facilities associated with the proposed project or alternatives evaluated in this Draft EIR would be constructed. Therefore, none of the impacts to traffic described in this section would occur.

The two transformer banks at Proctor Valley Substation are currently approved and would be constructed even if the proposed project were constructed. Construction of the transformer banks at Proctor Valley Substation was previously considered, and there would be no

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additional impacts from this construction of the additional transformer banks under the No Project Alternative.

Distribution circuits would likely be installed underground along various routes in the Otay Ranch area. Trenching would likely require lane and intersection crossing closures along various roadways and easements in the Otay Ranch area, which would result in traffic delays on roads that would not otherwise be affected by the proposed project. Temporary closures could also impede use of bicycle lanes and sidewalks. SDG&E would use standard operating protocols for traffic management for construction of the underground distribution lines. Impacts from the No Project Alternative would be less than significant.

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