

January 14, 2014  
B42083

TRANSMITTAL

TO:

Dan Klausenstock, PE  
NV5/Nolte  
15070 Avenue of Science, Suite 100  
San Diego, CA 92128

FROM:

Marc Baza, Assistant Transportation Planner  
KOA Corporation  
5095 Murphy Canyon Road Suite 330  
San Diego, CA 92123

KOA Corporation has prepared this response to comments from the California Public Utilities Commission (CPUC) "Table I: Application No. 14-04-011, Data Needs #5 for the Sycamore-Peñasquitos 230 Kilovolt Transmission Line Project," for the Segment-B portion of transmission line undergrounding in the area of Carmel Valley Rd in the Torrey Highland/Black Mountain Ranch communities. The following are the CPUC comments and a response index to our attached findings in the form of maps and tables:

**CPUC DR#3, Item 36**

**Provide the following information to supplement the October 20, 2014, KOA Traffic Study:**

**Comment 1) Pages or Maps from the City or County General Plan showing the classification of the roads (major arterial, collector, etc.), description of the road or at least a description of the classification and the typical cross-section of each classification.**

**KOA Response:**

Please see Attachment's 1 – 4 containing the below information:

Pg. 5 - 8: "City of San Diego Traffic Impact Study Manual"

Pg. 10 – 17: “City of San Diego Street Design Manual”

Pg. 19 – 22: “Torrey Highland Subarea IV”

Pg. 24 – 29: “Black Mountain Ranch Subarea Plan I”

### **CPUC DR#3, Item 36**

**Provide the following information to supplement the October 20, 2014, KOA Traffic Study:**

**Comment 2) The basis of the capacity calculations shown in “Capacity” in Table 2.**

#### **KOA Response:**

The capacity calculation for Table 2 is referenced from the City of San Diego’s Roadway Classification, Level of Service (LOS) and Average Daily Traffic Table (attached). This is a council-approved classification scheme rather than the result of a detailed Highway Capacity Manual (HCM) calculation. The listed Roadway classifications were identified in the City of San Diego Torrey Highlands (Subarea IV) and Black Mountain Ranch (Subarea I) Plans. Further definitions for the City of San Diego Roadway Classifications are defined in the City of San Diego Street Design Manual (attached). “LOS E” is the standard capacity threshold measured for the City of San Diego.

**Comment 3) Definition of LOS A, B, C etc. from the latest Highway Capacity Manual or the City and County Traffic Standards.**

#### **KOA Response:**

Please see Attachment I containing the below information:

Pg. 5 - 8: “City of San Diego Traffic Impact Study Manual”

**CPUC DR#3, Item 36**

**Provide the following information to supplement the October 20, 2014, KOA Traffic Study:**

**Comment 4) Count sheets for the traffic, bike and pedestrian counts, peak hour and ADT. These might not be available for all locations presented but all of the counts SDG&E paid for should be available.**

**KOA Response:**

Please see Attachment's 5 and 6 containing all count data:

Pg. 31 – 44: “Segment Counts (ADT)”

Pg. 46 - 50: “Peak Hour Turn Movements (Traffic, Bikes and Pedestrians)”

**Attachments**

Attachment 1 - City of San Diego Traffic Impact Study Manual

Attachment 2 - City of San Diego Street Design Manual

Attachment 3 - Torrey Highland Subarea IV

Attachment 4 - Black Mountain Ranch Subarea Plan I

Attachment 5 - Segment Counts (ADT)

Attachment 6 - Peak Hour Turn Movements (Traffic, Bikes and Pedestrians)

**Attachment I**

**“City of San Diego Traffic Impact Study Manual”**

**Pg. 5 - 8**

# TRAFFIC IMPACT STUDY MANUAL



JULY  
1998



City of San Diego

# TRAFFIC IMPACT STUDY MANUAL

FINAL

JULY 1998

This information, document, or portions thereof, will be made available in alternative formats

**TABLE 2**  
**Roadway Classifications, Levels of Service (LOS)**  
**and Average Daily Traffic (ADT)**

STREET CLASSIFICATION	LANES	CROSS SECTIONS	LEVEL OF SERVICE				
			A	B	C	D	E
Freeway	8 lanes		60,000	84,000	120,000	140,000	150,000
Freeway	6 lanes		45,000	63,000	90,000	110,000	120,000
Freeway	4 lanes		30,000	42,000	60,000	70,000	80,000
Expressway	6 lanes	102/122	30,000	42,000	60,000	70,000	80,000
Primary Arterial	6 lanes	102/122	25,000	35,000	50,000	55,000	60,000
Major Arterial	6 lanes	102/122	20,000	28,000	40,000	45,000	50,000
Major Arterial	4 lanes	78/98	15,000	21,000	30,000	35,000	40,000
Collector	4 lanes	72/92	10,000	14,000	20,000	25,000	30,000
Collector (no center lane) continuous left-turn lane)	4 lanes 2 lanes	64/84 50/70	5,000	7,000	10,000	13,000	15,000
Collector (no fronting property)	2 lanes	40/60	4,000	5,500	7,500	9,000	10,000
Collector (commercial-industrial fronting)	2 lanes	50/70	2,500	3,500	5,000	6,500	8,000
Collector (multifamily)	2 lanes	40/60	2,500	3,500	5,000	6,500	8,000
Sub-Collector (single-family)	2 lanes	36/56	—	—	2,200	—	—

**LEGEND:**

XXX/XXX = Curb to curb width (feet)/right-of-way width (feet): based on the City of San Diego Street Design Manual

XX/XXX= Approximate recommended ADT based on the City of San Diego Street Design Manual.

**NOTES:**

1. The volumes and the average daily level of service listed above are only intended as a general planning guideline.
2. Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

## 7. ANALYSIS

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This chapter describes the analytical techniques used to derive the study findings, conclusions, and recommendations. This recognizes current methodologies. However, other techniques may be considered once they are developed or unique problems are encountered. This chapter attempts to provide guidance on the proper analysis technique to be applied; it does not attempt to document any particular analysis technique or preclude the use of any technique not specifically mentioned. Analysis techniques should be discussed by the preparer and reviewer of the traffic impact study prior to beginning the study.

### **Total Traffic Estimate**

For each analysis period being studied, a projected total traffic volume must be estimated for each segment of roadway system being analyzed.

### **Identification of Impacts and Deficiencies**

#### Acceptable Level of Service

The standard used to evaluate traffic operating conditions of the transportation system is referred to as level of service. This is a qualitative assessment of the quantitative effect of factors such as speed, volume of traffic, geometric features, traffic interruptions, delays and freedom to maneuver. The acceptable level of service standard for roadways and intersections in San Diego is level of service D. However, for undeveloped locations, the goal is to achieve a level of service C.

#### Levels of Significance

To determine if a project contributes enough traffic to a transportation facility to consider mitigation measures, a level of significance threshold is used. **Table 5** identifies the levels of significance for several analysis techniques at varying levels of service. If the project causes a change greater than the level shown, the developer is considered to be responsible for all or part of the improvements required to mitigate the site traffic to the level previously held on the facility prior to the project's traffic impacts.

### **Signalized Intersection Analysis**

The measure of effectiveness for signalized intersections is average stopped delay per vehicle. The current Highway Capacity Manual's signalized intersection operational methodology is the basis for determining intersection delay. The Highway Capacity Software (HCS), based on the HCM methodology, is acceptable except in cases of extreme congestion, where alternative software must be used to obtain average

**Attachment 2**

**“City of San Diego Street Design Manual”**

**Pg. 10 – 17**



THE CITY OF SAN DIEGO

The City of

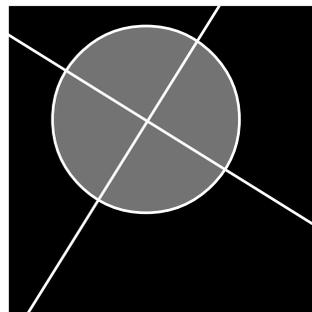
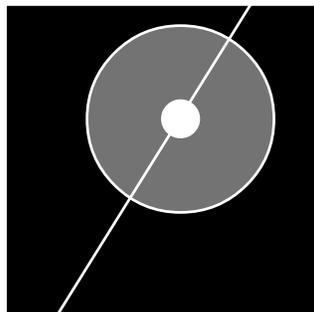
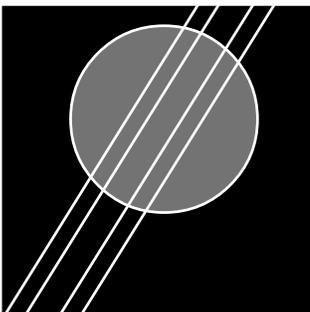
San Diego

Street

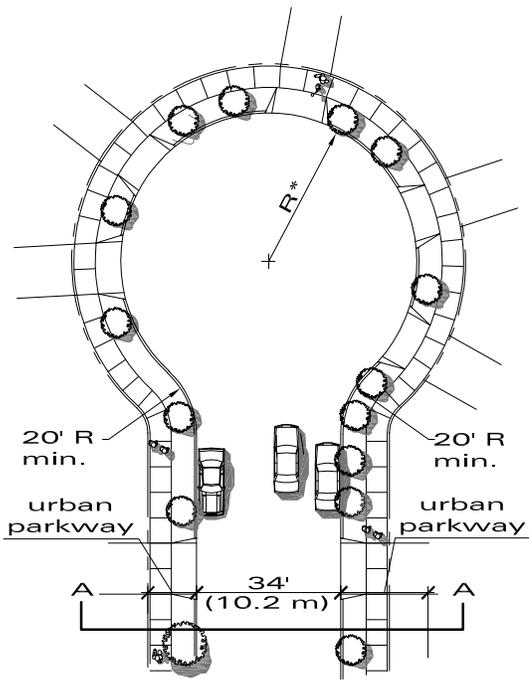
Design  
Manual

November 2002

*"If we can develop and design streets so that they are wonderful, fulfilling places to be—community-building places, attractive for all people—then we will have successfully designed about one-third of the city directly and will have had an immense impact on the rest," Alan B. Jacobs, Great Streets.*

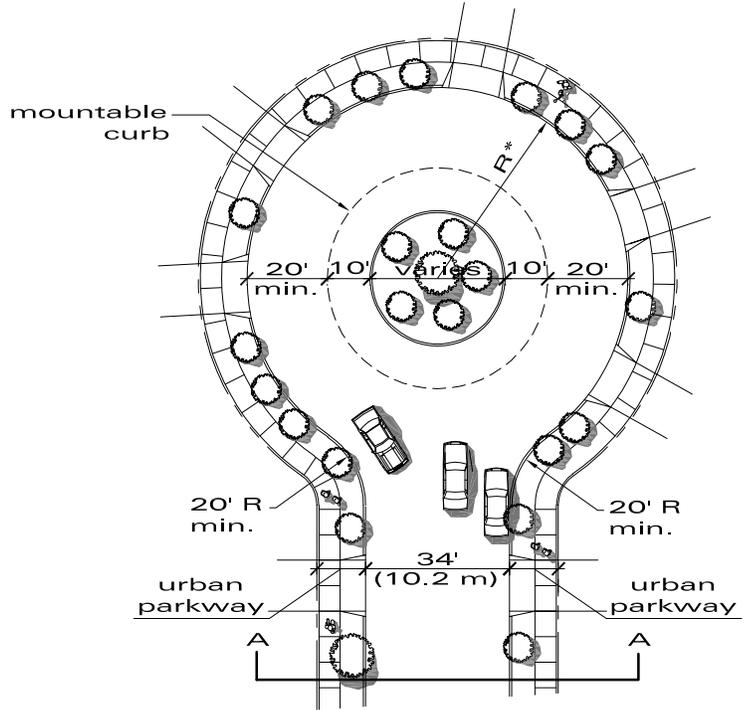


2002



**Cul-de-sac**  
not to scale

\* Refer to Geometric Design, Section E



**Enhanced cul-de-sac**  
not to scale

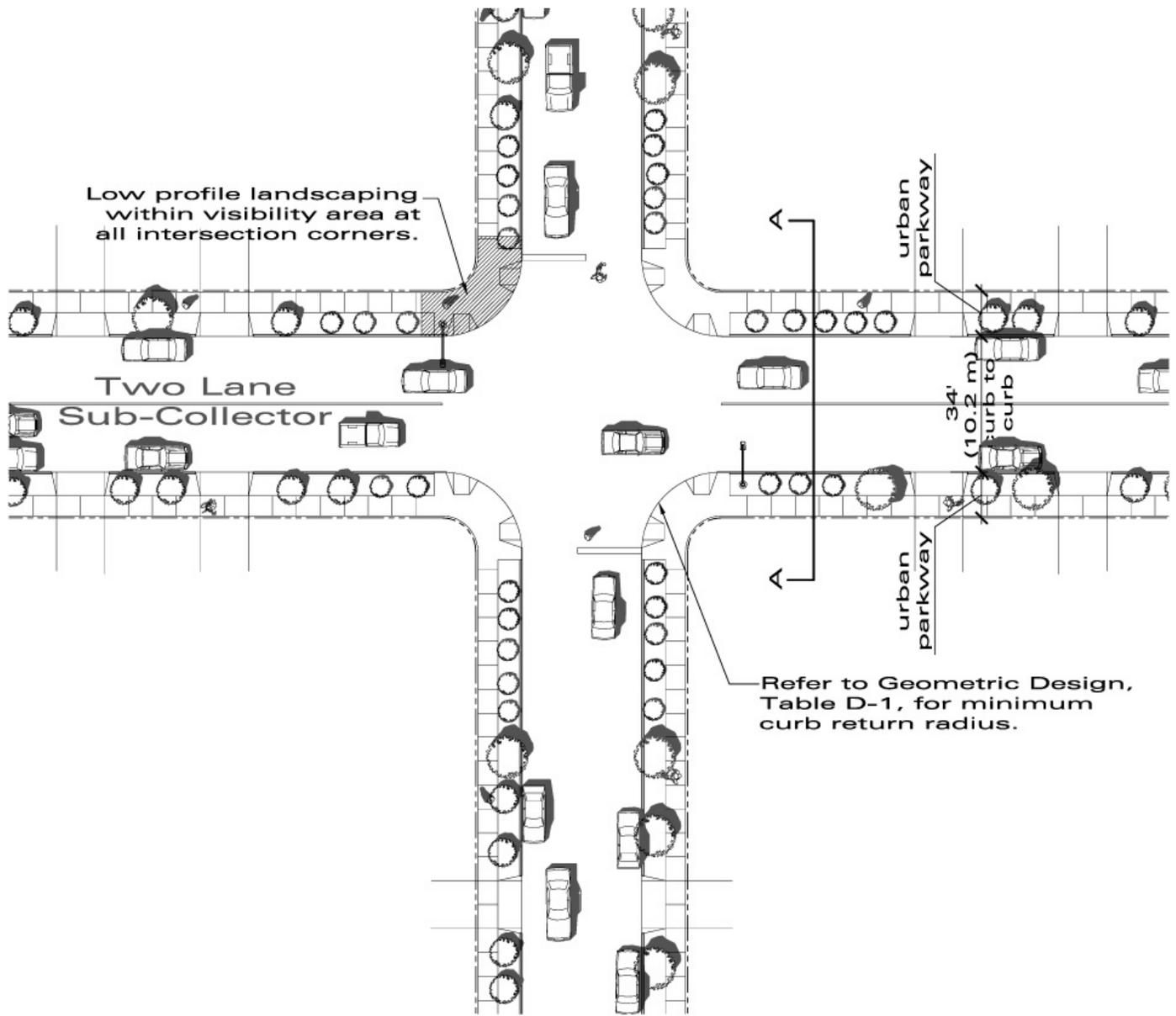
\* Refer to Geometric Design, Section E

Note: On-street parking should be prohibited on refuse collection days.

**plan (not to scale)**



# Two Lane Sub-collector



plan (not to scale)

30

urban parkway

U-2

U-3

U-4  
a

U-5  
a

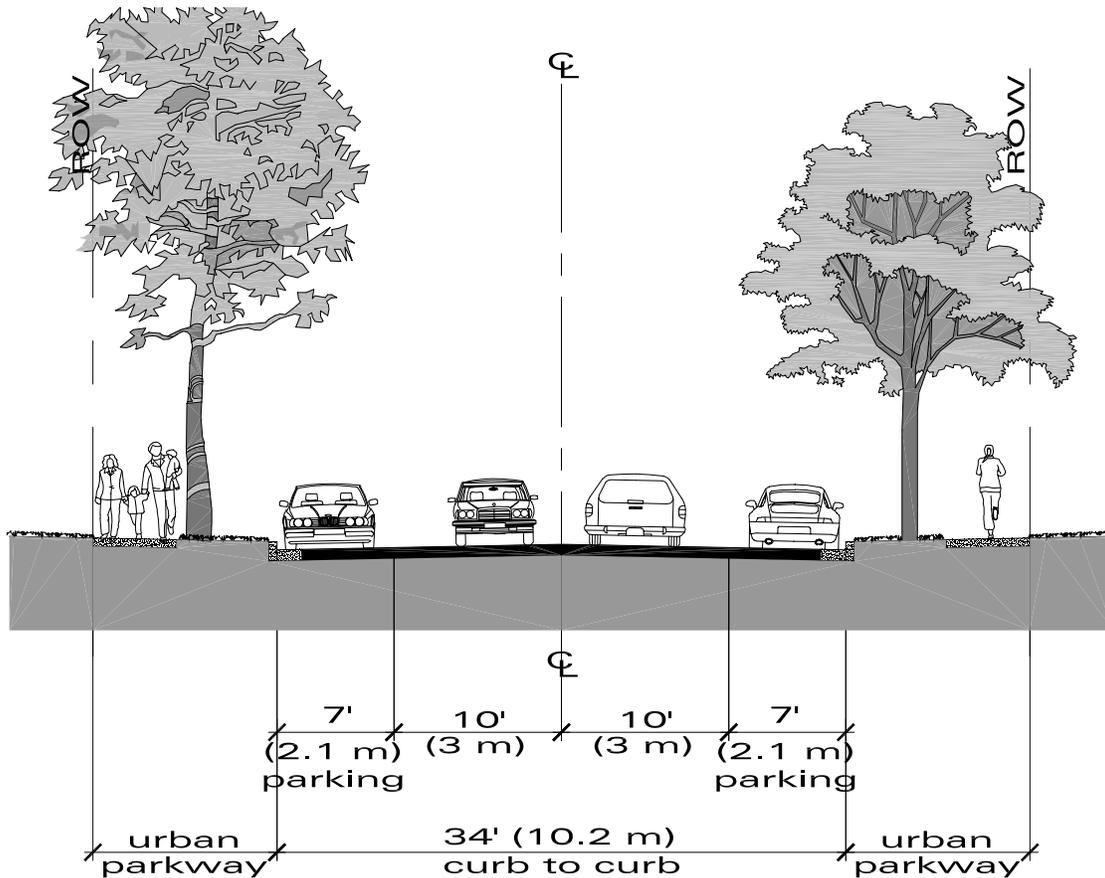
U-5  
b

U-6  
a

U-6  
b

<b>Width, Right-of-Way</b>	54 ft. (16.2 m) - 74 ft. (22.2 m)
<b>Design ADT</b>	2,200
<b>Design Speed</b>	30 mph (50 km/h)
<b>Width, Curb-to-Curb</b>	34 ft. (10.2 m)
<b>Maximum Grade</b>	10% (8% in commercial area)
<b>Minimum Curve Radius</b>	500 ft. (160 m) above 6% grade 450 ft. (145 m) at or below 6% grade
<b>Land Use</b>	Large Lot Single Dwelling Residential, Single Dwelling Residential, Low Density Multiple Dwelling Residential, Open Space-Park, Medium-to-Very High Density, Multiple Dwelling Residential
<b>Parkway Options<sup>1</sup></b>	U-3; U-4 (a)
<b>Land Use</b>	Neighborhood Commercial; Community Commercial, School, Church, or Public Building
<b>Parkway Options</b>	U-2; U-5 (a,b); U-6 (a,b)

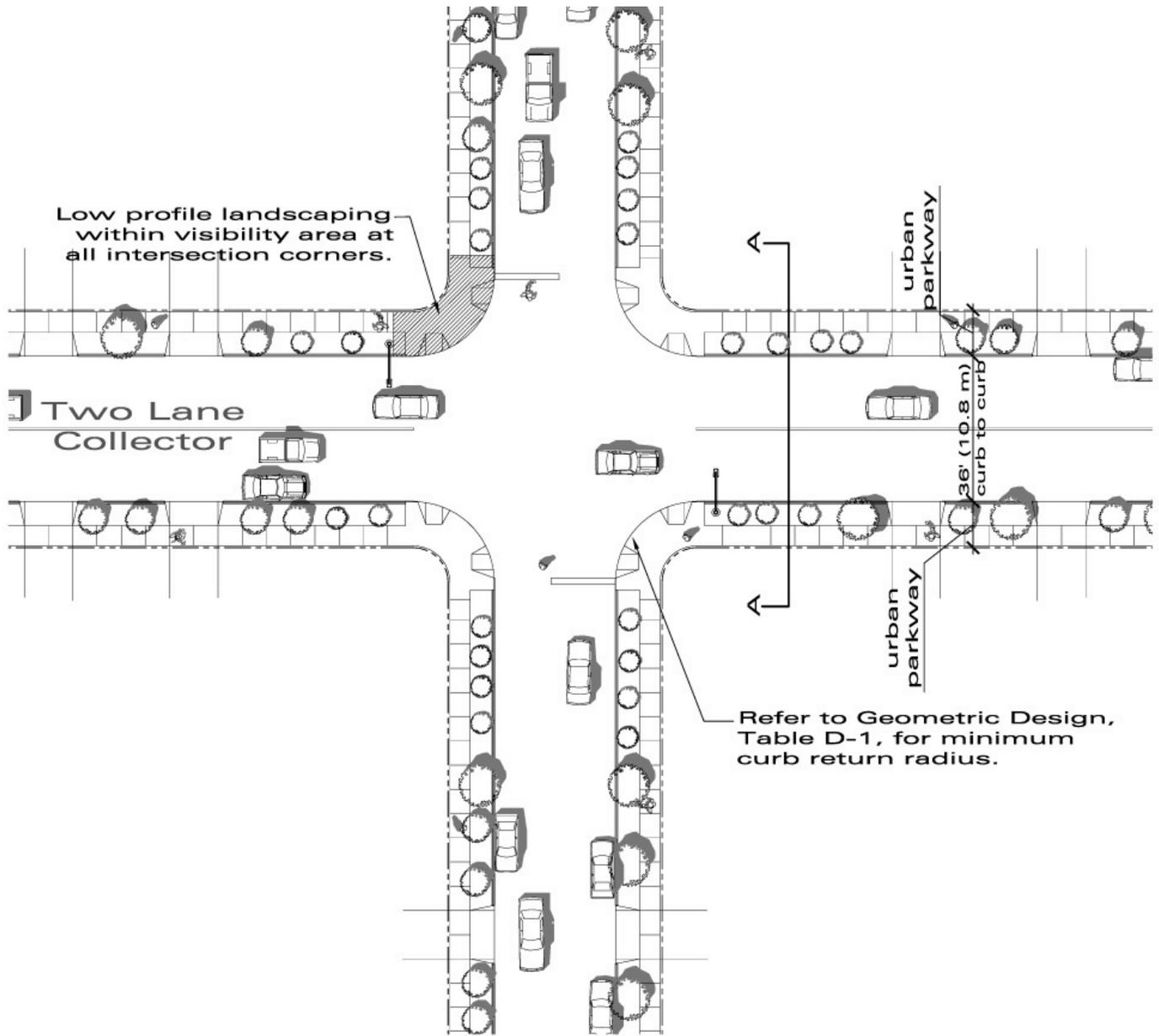
<sup>1</sup> Where building setback is zero, U-4 (a) parkways should be installed.



**section A-A (not to scale)**



# CI Two Lane Collector



plan (not to scale)

32

urban parkway

U-3

U-4  
a

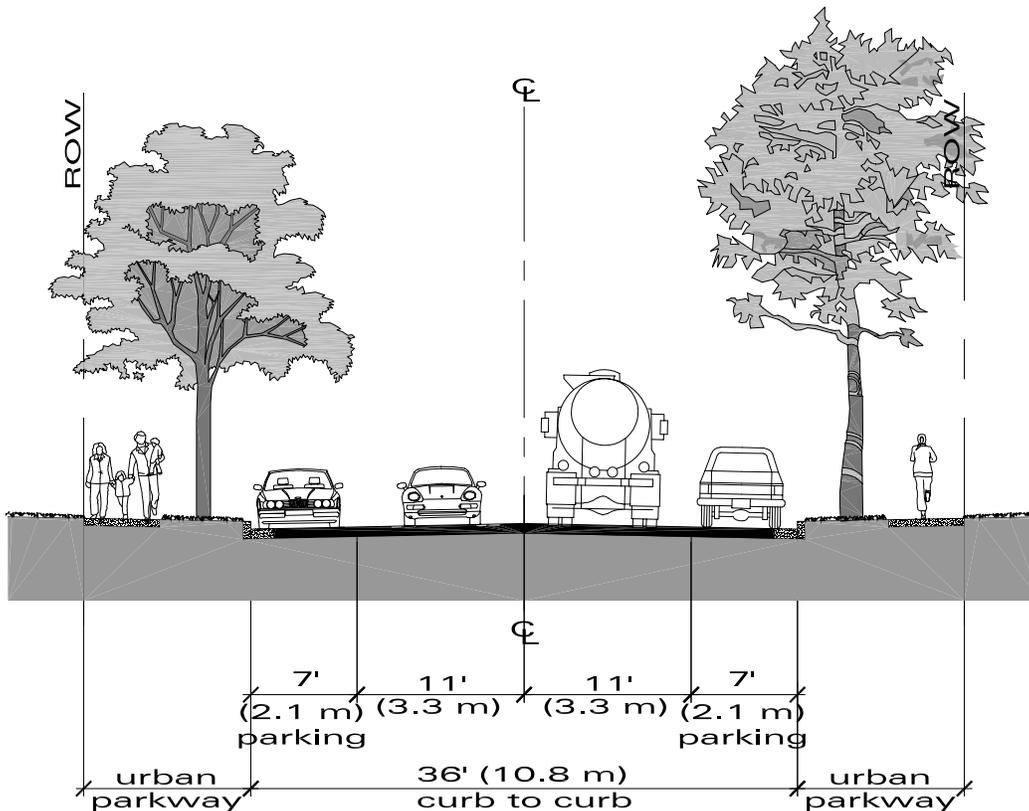
U-5  
a

U-5  
b

U-6  
a

U-6  
b

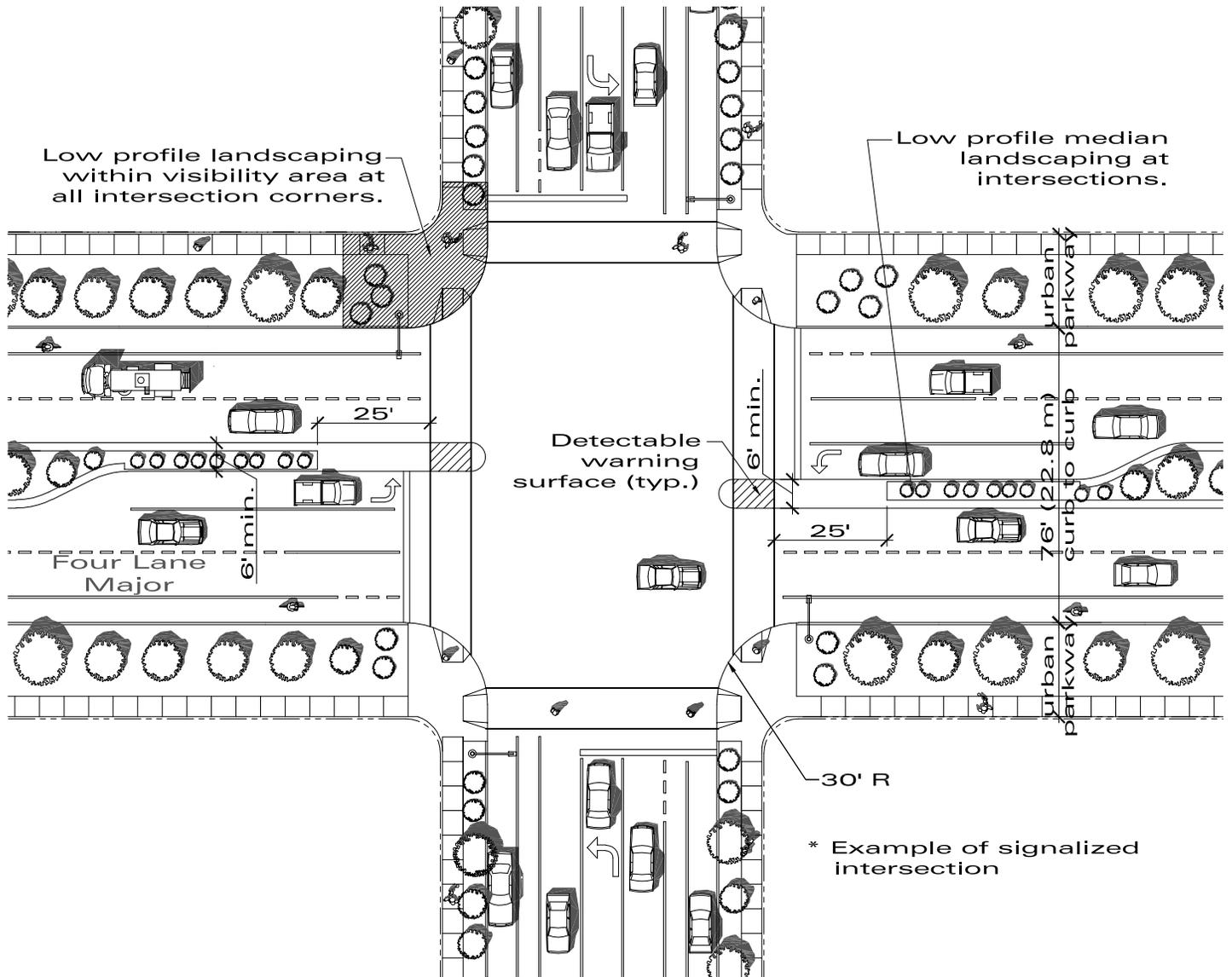
<b>Width, Right-of-Way</b> (with added bike lanes)	60 ft. (18.0 m) - 86 ft. (25.8 m) 70 ft. (21.0 m) - 96 ft. (28.8 m)	
<b>Design ADT</b>	LOS C	5,000
	LOS D	6,500
<b>Design Speed</b>	30 mph (50 km/h)	
<b>Width, Curb-to-Curb</b> (with added bike lanes)	36 ft. (10.8 m) 46 ft. (13.8 m)	
<b>Maximum Grade</b>	10% (8% in commercial area)	
<b>Minimum Curve Radius</b>	500 ft. (160 m) above 6% grade 450 ft. (145 m) at or below 6% grade	
<b>Land Use</b>	Large Lot Single Dwelling Residential - no front yards, Single Dwelling Residential - no front yards, Low Density Multiple Dwelling Residential - no front yards, Open Space-Park	
<b>Parkway Options</b>	U-3; U-4 (a)	
<b>Land Use</b>	Commercial; School, Church, or Public Building	
<b>Parkway Options</b>	U-5 (a,b); U-6 (a,b)	



**section A-A (not to scale)**



# Four Lane Major

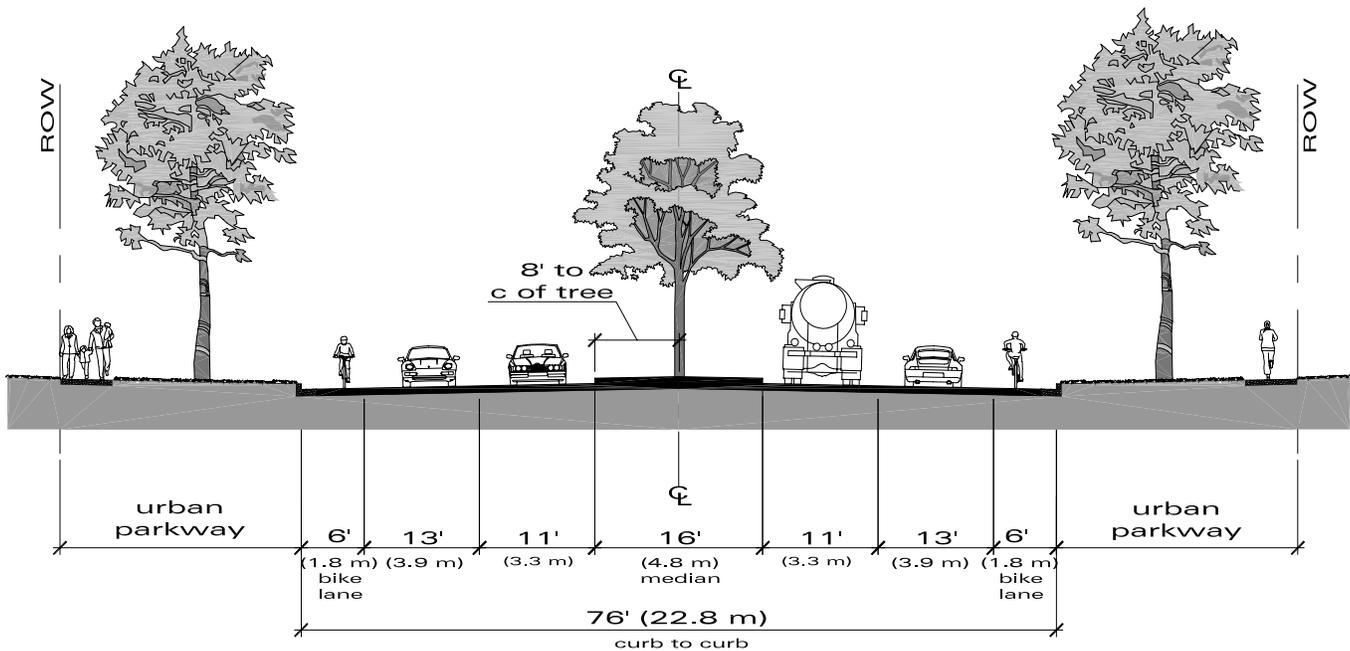


plan (not to scale)

<b>Width, Right-of-Way</b>	120 ft. (36.0 m)	
<b>Design ADT</b>	LOS C	30,000
	LOS D	35,000
<b>Design Speed</b>	55 mph (90 km/h)	
<b>Width (includes bike lanes and 16 ft. (4.8 m) raised center median), Curb-to-Curb<sup>1,2</sup></b>	76 ft. (22.8 m)	
<b>Maximum Grade</b>	7%	
<b>Minimum Curve Radius</b>	1,850 ft. (585 m) with no superelevation 1,350 ft. (430 m) with 2% (min.) superelevation 880 ft. (275 m) with 10% (max.) superelevation	
<b>Land Use</b>	Single Dwelling Residential-no front or side yards; Multiple Dwelling Residential-no front or side yards; Community Commercial-no front yards; Regional Commercial; Commercial Office; Visitor Commercial; Church; Public Building; Industrial; Open Space	
<b>Parkway</b>	U-4 (b)	

<sup>1</sup> Widen additional 10 ft. (3.0 m) at approaches to intersecting four-or-six-lane streets to provide a minimum of 250 ft. (75 m) of two-lane left-turn storage, exclusive of transitions. Receiving lanes for dual lefts shall be 12 ft. (3.6 m) wide. In instances where supporting information exists, such as an approved traffic impact study, showing clearly that dual left-turn lanes would not be warranted, the standard curb-to-curb width may be permitted.

<sup>2</sup> At intersections, a minimum 6 ft. (1.8 m) wide refuge island shall be maintained in the center median.



**section A-A (not to scale)**

**Attachment 3**

**“Torrey Highland Subarea IV”**

**Pg. 19 - 22**

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# TORREY HIGHLANDS

## SUBAREA PLAN

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City of San Diego Planning Department

202 C Street, MS 4A  
San Diego, CA 92101



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## TORREY HIGHLANDS COMMUNITY PLAN

The following amendments have been incorporated into this January 2006 posting of this Plan:

Amendment	Date Adopted by Planning Commission	Resolution Number	Date Adopted by City Council	Resolution Number
Torrey Highlands Subarea Plan adopted			August 5, 1996	R-287749
Redesignated a portion of the Employment Center to LD and LMD Residential (Torrey Santa Fe)	December 2, 1999		December 7, 1999	R-292591
Redesignated 2 small areas from Institutional to LMXU and LMD Residential to Commercial Regional (Greystone Homes)	October 26, 2000		November 14, 2000	R-294053
Redesignated 39 acres from LD Residential to LMD Residential (Shaw)	August 1, 2002		September 24, 2002	R-297097
Reconfigured residential, commercial and open space areas and adjusted the community plan boundary on a 147-acre site (Rhodes Crossing)	February 5, 2004		March 30, 2004	R-299054

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## CHAPTER THREE: CIRCULATION

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### GOAL:

Ensure a safe and efficient transportation system that integrates within the existing regional system and minimizes impacts to residential neighborhoods and environmentally sensitive areas.

### 3.1 IMPLEMENTING PRINCIPLES

- Provide for a transit center which will encourage the use of alternative forms of transportation such as public transit, car/van pools and other transportation demand management measures to reduce both roadway congestion and pollution.
- Provide a system of trails, bikeways and pedestrian facilities that is the focal point of the community, links community activity centers and encourages alternatives to automobile use.
- Ensure timely provision of a local circulation system to accommodate planned growth at acceptable levels of service.
- Provide a land use pattern and circulation system that optimizes potential opportunities for transit use.
- Provide for future transit use along Carmel Valley Road and SR-56.

### 3.2 REGIONAL CIRCULATION

**Freeways:** Torrey Highlands is centrally located between Interstate 5 (I-5), four miles to the west, and Interstate 15 (I-15), 2.5 miles to the east (**Figure 3-1**). The freeways are part of the major north/south circulation system in San Diego County and accommodate more than 500,000 average daily trips (ADT). State Route 56 is ultimately planned as a six-lane freeway connecting I-5 and I-15 through the NCFUA. Segments of SR-56 to the west (in Carmel Valley) and to the east (in Rancho Peñasquitos) are completed. Through Torrey Highlands, SR-56 is estimated to carry between 69,000 and 95,000 ADT under cumulative buildout conditions (2012).

**Major Roads:** Circulation roads within Torrey Highlands which provide connections to adjacent communities include Carmel Mountain Road, Camino Ruiz and Carmel Valley Road.

### 3.3 TORREY HIGHLANDS CIRCULATION

As illustrated in **Figure 3-2**, the Torrey Highlands Circulation Plan identifies an alignment for SR-56, as well as alignments for major roadways and collectors.

### 3.3.1 Circulation Roads

#### State Route 56 Freeway

The approved alignment for SR-56 bisects Torrey Highlands in a northwesterly direction. This freeway will ultimately accommodate six travel lanes, with interchanges located at Camino Ruiz and at Camino Santa Fe in Pacific Highlands Ranch (Subarea III). Initially, SR-56 will be constructed as a four-lane freeway and will include the completion of the interchange at Black Mountain Road and a bike path running adjacent to the south side of the freeway.

#### Major Roads

Camino Ruiz is a north/south road located in the eastern third of Torrey Highlands, serving both local and regional demands. The road will continue north of Torrey Highlands to serve as one of the major north/south arterials between I-5 and I-15 serving the mid-county area. An interchange is proposed at SR-56. Within Torrey Highlands, Camino Ruiz is planned as a six-lane major road from Carmel Valley Road to the southernmost project access road (i.e. “B” Street south).\* Between the southernmost project access road and the primary Regional Commercial access, Camino Ruiz will be planned as a six-lane primary arterial. North of Carmel Valley Road and south of SR-56, the road transitions from Carmel Valley Road to a four-lane major road. Camino Ruiz will provide access to SR-56 for the southwest portion of Rancho Peñasquitos. Estimated ADT ranges from 22,000 to 41,000 north of SR-56, and 10,000 to 27,000 south of SR-56.

Carmel Valley Road is designated as a four-lane, east/west major roadway within the northern half of Torrey Highlands, which will ultimately extend from Del Mar Heights Road and Camino Santa Fe on the west to Camino del Norte in the east. Several Torrey Highlands neighborhoods will take direct access from Carmel Valley Road. While the road will be constructed for four lanes, right-of-way sufficient for six lanes will be reserved to include two lanes for future transit use. Estimated ADT through Torrey Highlands is approximately 22,000.

Del Mar Heights Road is the western extension of Carmel Valley Road that occurs off-site within the western portion of Subarea III and the community of Carmel Valley. The road ultimately provides a connection with I-5 and the City of Del Mar to the west. Estimated ADT on Del Mar Heights Road east of El Camino Real is between 24,000 and 33,000 ADT. West of El Camino Real and east of I-5, ADT reaches 41,000 to 43,000.

Carmel Mountain Road is designated as a four-lane major roadway that connects Rancho Peñasquitos in the east to Camino Ruiz, south of SR-56.

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\* Camino Ruiz will initially be constructed to a maximum of four lanes, with two additional lanes of ROW provided in the median should traffic counts require future road expansion to six lanes.

**Attachment 4**

**“Black Mountain Ranch Subarea Plan I”**

**Pg. 24 – 29**

# **Black Mountain Ranch Subarea Plan**

Adopted July 1998  
(Amended May 2009)

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# City of San Diego

## **MAYOR**

Susan Golding

## **CITY COUNCIL**

Harry Mathis, First District  
Byron Wear, Second District  
Christine Kehoe, Third District  
George Stevens, Fourth District  
Barbara Warden, Fifth District  
Valerie Stallings, Sixth District  
Judy McCarty, Seventh District  
Juan Vargas, Eighth District

## **CITY ATTORNEY**

Casey Gwinn

## **CITY MANAGER**

Michael Uberuaga

## **CITY CLERK**

Charles Abdelnour

## **PLANNING COMMISSION**

Mark Steele, Chairperson  
William Anderson, Vice Chairperson  
Patricia Butler  
Verna Quinn  
Andrea Skorepa  
David Watson  
Frisco White

Bernardo Road. Rancho Bernardo Road connects portions of 4S Ranch east of Subarea I to Interstate 15 further to the east. Rancho Bernardo Road currently terminates at the east boundary of Subarea I. No improved public roadways presently connect the north from Subarea I.

Both the west and the east ends of State Route 56 are complete and in operation. The proposed middle segment will traverse the NCFUA generally in an east-west direction south of Subarea I. This middle segment will connect the west end of State Route 56 in Carmel Valley with the east end of State Route 56 in Rancho Peñasquitos. The City of San Diego and Caltrans have selected an alignment that is to the south of Subarea I. Subarea I will be directly connected to SR-56 by Camino del Sur and Black Mountain Road (Figure 1.3).

## **B. THE STREET SYSTEM WITHIN SUBAREA I**

The planned circulation network for Subarea I would consist of a hierarchy of streets. The hierarchical pattern of streets allows for the separation of local and through traffic and minimize conflicts. In addition, a pattern of local and collector streets will encourage pedestrian and bicycle usage by allowing for roadways with lower traffic volumes and narrower widths, which would contribute to a safer environment for non-motorized traffic.

The street system within Subarea I serves, in concert with the open space system and pedestrian linkages, to frame the community and provide visual clarity and a sense of orientation. The design and implementation of the circulation system through the use of bridges and underpasses reflects the resource-based nature of the community reducing impacts to the MHPA. The transportation system is also designed to be multimodal to minimize impacts to the surrounding communities.

A backbone street system of Camino del Sur, San Dieguito Road, and Carmel Valley Road all link with roads outside the Subarea and are designed to carry both through and local traffic (Figures 6.1 and 7.20). Collector streets occur exclusively in or proximate to the North Village's Community Mixed Use Center or the South Village (Figures 2.5, 7.15 and 7.16).

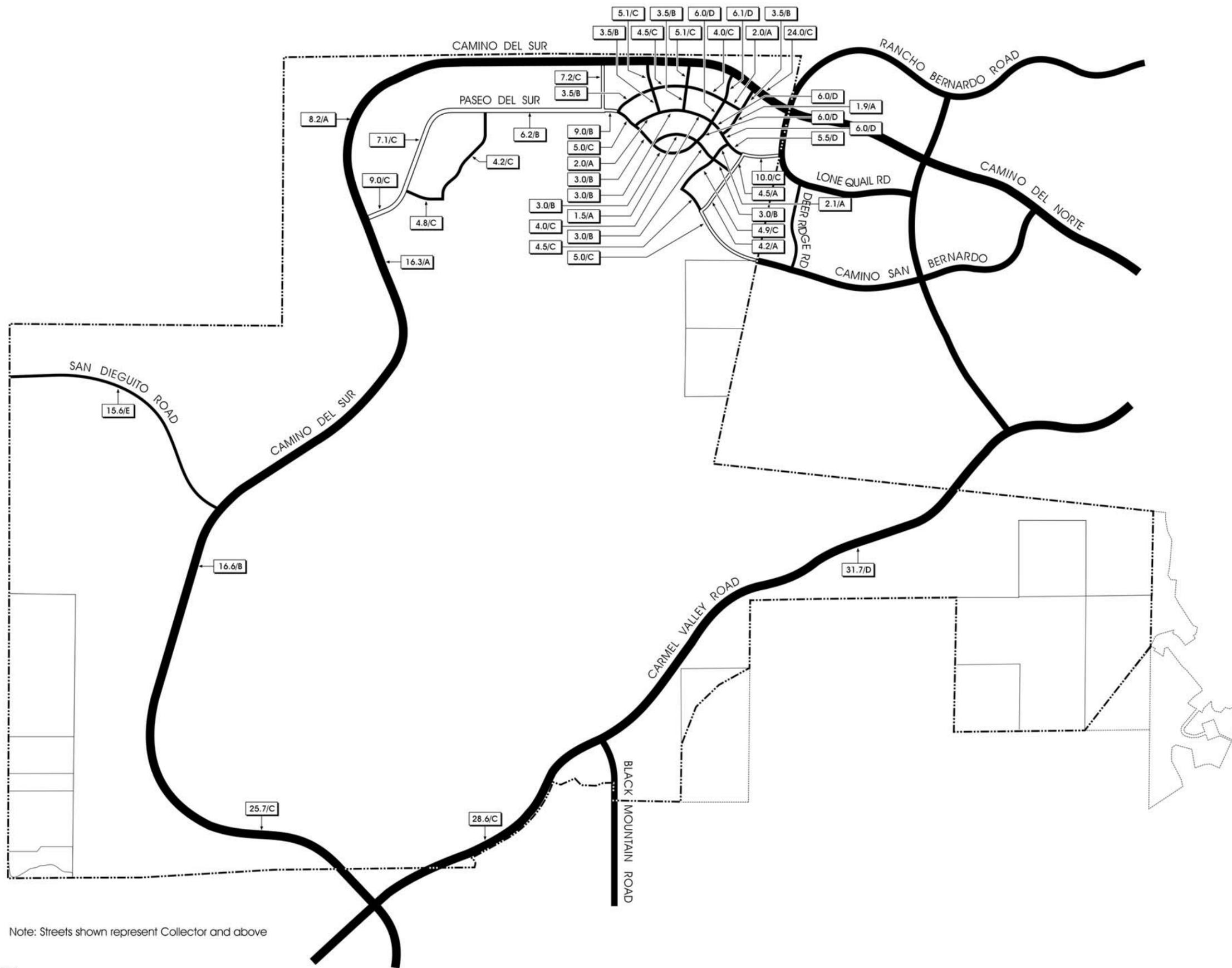
A series of computerized area-wide traffic models have been run to evaluate the adequacy of proposed street improvements for all FUA subareas, with manual estimates of average daily traffic calculated for the North Village.

Figure 6.1 identifies daily traffic in Subarea I at project buildout. These numbers include trips occurring on Subarea I roadways which have their origin within Subarea I as well as trips originating elsewhere in the region. The highest number of trips occur on Camino del Sur. This is an acknowledgment that the highest intensity of use is located in the area between the Community Mixed Use Center and I-15. This area encompasses existing and proposed 4S Ranch development as well as the Rancho Bernardo Industrial Park.

The streets within Subarea I are classified according to the City's street standards and consist of the following types:

- Four Lane Major Streets, such as Camino del Sur and Carmel Valley Road.
- Modified Two- Lane Collector Streets, such as Paseo Del Sur
- Two-Lane Collector Streets, such as San Dieguito Road

Figure 6.1, Street Classifications, shows the street sizes required for the project. The street classifications, curb-to-curb width, and right-of-way widths are defined in the City's street standards. Based on the cumulative traffic volumes at project buildout, Camino Del Norte - which will be built to six lane prime standards east of the Subarea I boundary - will continue as a six-lane prime right-of-way within the North Village, but transition to four-lane major street improvements with extra wide medians (Figure 7.20). [Camino del Norte changes its name to Camino del Sur within the subarea.] Camino del Sur is classified as a four lane major street with extra



## Legend

-  Modified 4 Lane Major (122' Right-of-Way)
-  4 Lane Collector (98' Right-of-Way)
-  Modified 2 Lane Collector w/ Median (100' Right-of-Way)
-  2 Lane Collector w/ 2 Way Left Turn Lane (78' Right-of-Way)
-  2 Lane Collector (60' Right-of-Way)
-  Forecast average daily traffic volume in thousands/ projected level of service at subarea and regional build out.

All other streets within Subarea I which are not shown will be 2 lane sub-collector or local with 56' of Right-of-Way or Less. Portions of such streets may be widened or narrowed as entry features, or to establish community character with the approval of the City Engineer.

Note: Streets shown represent Collector and above

#### **a) Bernardo Center Drive**

Improvements are recommended at the intersection at West Bernardo Drive as well as at the intersection with Camino del Norte. Improvements to the approach lanes will result in additional capacity, and minor widening will be required. The improvement may also include a pedestrian bridge. Impacts from these improvements will be temporary traffic delays and possible short-term noise impacts from construction of the improvements.

#### **b) Black Mountain Road**

The extension of Black Mountain Road from the northern limit of Black Mountain Road to Carmel Valley Road will be constructed to its ultimate cross section as part of the BMR/VTM PRD. The portion of Black Mountain Road south of SR-56 is expected to have traffic volumes that will require that the roadway be widened to six-lane primary arterial standards. This widening effort will extend between Twin Trails Road and Mercy Road. As the widening to six lanes is a planned improvement, impacts from the widening will be temporary traffic delays and possible short-term noise impacts from construction of the improvements.

#### **c) Camino del Norte**

This facility is necessary for access to the I-15 corridor from the project as a four-lane facility on the western portion increasing to a six-lane arterial to the east within the 4S Ranch project. On-site portions of Camino del Sur will be built by Subarea I. The adjacent portions will be constructed by the 4S Ranch project. The need for this facility is identified in the phased improvements for Subarea I. Additional improvements have also been defined at the I-15 interchange consistent with the project report by Caltrans that will enhance capacity at the interchange. These improvements are reflected in the planned geometry used for the calculations of delay and congestion. A significant archeological site, CA-SDI-5,103, is located within the future alignment of Camino del Sur. Mitigation in the form of data recovery is required for construction of Camino del Sur to Bing Crosby Boulevard in accordance with 1995 VTM/PRD. Beyond this, no further mitigation is appropriate in view of the acceptable levels of service forecast for buildout conditions.

#### **d) Camino del Sur**

Camino del Sur is planned to be constructed in its ultimate cross section of a four-lane major street between Carmel Valley Road and San Dieguito Road as part of the approved VTM/PRD for Black Mountain Ranch. For the portion of Camino del Sur north of San Dieguito Road, the proposed project will construct Camino del Sur to four-lane major standards. The developers of Torrey Highlands will construct portions of Camino del Sur to the south of Carmel Valley Road. Impacts from these improvements were evaluated in the Black Mountain Ranch VTM/PRD EIR and the EIR for Fairbanks Highlands. A partial cloverleaf interchange will be provided at State Route 56 at the time the six-lane SR-56 is required. The EIR for State Route 56 (LDR No. 95-0099, SCH No. 96031039) evaluated impacts of the construction of SR-56, including the Camino del Sur interchange.

Immediately north of proposed SR-56, a short portion of Camino del Sur is projected to experience daily traffic volumes in excess of levels consistent with desirable levels of service for the planned six-lane facility. However, the improvements to the interchange with SR-56 to allow for loop ramps will achieve acceptable levels of service at the interchange during peak hours. Further, the ultimate provision of six lanes for the portion of Camino del Sur between Carmel Valley Road and Carmel Mountain Road is appropriate for the level of project volumes.

#### **e) Carmel Valley Road**

Carmel Valley Road will be built to its ultimate configuration (four-lane major standards) for its entire length. This roadway will be built consistent with City standards and the projected traffic volumes. The eastern portion of Carmel Valley Road, which links Black Mountain Road to Rancho Bernardo, is phased to be available at the appropriate stage. The portions of Carmel Valley Road to the west and beyond the Black Mountain Ranch project boundaries are partially the responsibility of the Black Mountain Ranch VTM/PRD during its initial

stages. Impacts from construction of Carmel Valley Road were covered in the 1992 EIR for Black Mountain Ranch North and South Tentative Maps (DEP Nos. 90-0332 and 91-0313, SCH No. 91081026) and the 1995 Black Mountain Ranch VTM/PRD EIR.

**f) El Apajo**

A minor widening to achieve two travel lanes plus a two-way left-turn lane and either parking or bike lanes is proposed for El Apajo between San Dieguito Road and Via de Santa Fe. These improvements would reduce but not fully mitigate the traffic impacts from buildout of the Subarea I on El Apajo. While a four-lane cross section would fully mitigate the projected traffic volumes, the proposed three-lane cross section is in better conformance with the existing abutting development. Full four-lane widening would impact street access for an existing school and shopping center, would require grading into sensitive slopes, and removal of mature trees.

**g) El Camino Real**

The portion of El Camino Real between Via de la Valle and San Dieguito Road is currently constructed with two travel lanes. El Camino Real needs to be widened to a four-lane facility from Via de la Valle south to Half Mile Drive. The City has undertaken design of the bridge over the San Dieguito River. The bridge improvement would result in impacts to wetlands, and agricultural lands.

**h) Interstates 5 and 15**

The project's volumes are not significant in the planned buildout of Interstate 5 or 15 based the City's guidelines except for one segment on Interstate 15 south of Camino del Norte. Improvements are being examined by Caltrans as part of the current Major Investment Study (MIS). These improvements include HOV lanes on I-5 north of I-805 and HOV lanes in the median area of I-15 north of SR-56 as well as a myriad of other operational capacity improvements. These improvements on Interstate 15 could result in as much as three additional lanes of peak hour capacity. As part of Caltrans' ongoing work, it is expected that HOV slip ramps will become available at every on-ramp in both directions as ramp improvements occur with other surface street improvements. Caltrans would be the responsible agency for review of the potential environmental impacts of improvements to these two freeway facilities.

**i) Rancho Bernardo Road**

Studies have identified the need for six lane-widening improvements on Rancho Bernardo Road from West Bernardo Drive through to the I-15 interchanges, continuing to Bernardo Center Drive. These improvements include both intersection improvements to enhance capacity and roadway widening to achieve the adopted six-lane major cross section as identified in the Community Plan for Rancho Bernardo. Both the Black Mountain Ranch project and the County's 4S Ranch project are identified with joint responsibility for implementing these improvements, as well as several other improvements in the Rancho Bernardo area. A reclassification to primary arterial would be necessary to fully mitigate this segment. This necessitates purchasing access rights and driveway closures west of the freeway. This would impact community access and existing commercial uses along this reach.

**j) Paseo Del Sur**

Paseo Del Sur will be built as development of the proposed project proceeds. Since this facility is wholly within the northern project area, it is wholly the responsibility of the developers of Black Mountain Ranch. Traffic signals will also be provided at key intersections along its length.

**k) San Dieguito Road**

This roadway is projected to have buildout traffic volumes that exceed its standard functional capacity in locations both in the county and the city of San Diego. However, the predominant character of San Dieguito

**Attachment 5**

**“Segment Counts (ADT)”**

**Pg. 31 – 44**



# 24 Hour Segment Count

Accurate Video Counts Inc  
info@accuratevideocounts.com  
(619) 987-5136



**Location:** 1. Camino Del Sur, South of Carmel Valley Road

**Orientation:** North-South

**Date of Count:** Wednesday, May 28, 2014

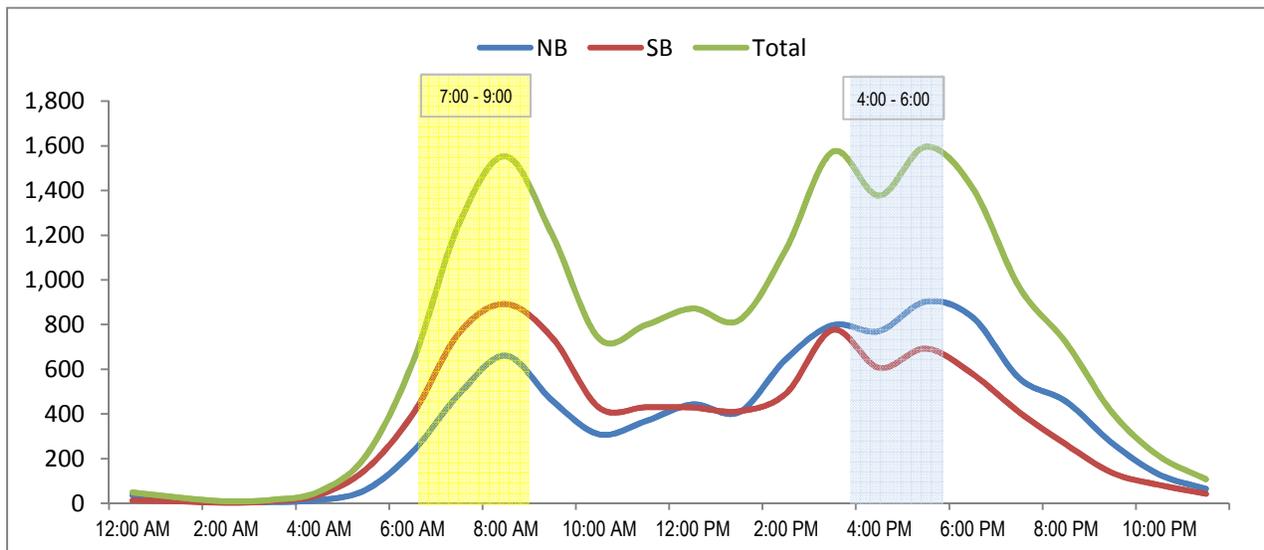
**Analysts:** DASH

**Weather:** Sunny

**AVC Proj. No:** 14-0210

24 Hour Segment Volume					17,728			
Time	Hourly Volume			Time	Hourly Volume			
	NB	SB	Total		NB	SB	Total	
12:00 AM - 1:00 AM	36	13	49	12:00 PM - 1:00 PM	443	429	872	
1:00 AM - 2:00 AM	17	9	26	1:00 PM - 2:00 PM	408	412	820	
2:00 AM - 3:00 AM	7	2	9	2:00 PM - 3:00 PM	645	491	1,136	
3:00 AM - 4:00 AM	6	10	16	3:00 PM - 4:00 PM	797	776	1,573	
4:00 AM - 5:00 AM	15	38	53	4:00 PM - 5:00 PM	771	606	1,377	
5:00 AM - 6:00 AM	60	152	212	5:00 PM - 6:00 PM	903	693	1,596	
6:00 AM - 7:00 AM	230	397	627	6:00 PM - 7:00 PM	833	579	1,412	
7:00 AM - 8:00 AM	489	763	1,252	7:00 PM - 8:00 PM	560	408	968	
8:00 AM - 9:00 AM	661	892	1,553	8:00 PM - 9:00 PM	456	264	720	
9:00 AM - 10:00 AM	459	740	1,199	9:00 PM - 10:00 PM	268	136	404	
10:00 AM - 11:00 AM	309	428	737	10:00 PM - 11:00 PM	129	82	211	
11:00 AM - 12:00 PM	368	430	798	11:00 PM - 12:00 AM	65	43	108	
<b>Total</b>	<b>2,657</b>	<b>3,874</b>	<b>6,531</b>	<b>Total</b>	<b>6,278</b>	<b>4,919</b>	<b>11,197</b>	

**24-Hour NB Volume 8,935**      **24-Hour SB Volume 8,793**



# 24 Hour Segment Count

Accurate Video Counts Inc  
info@accuratevideocounts.com  
(619) 987-5136



**Location:** 5. Black Mountain Road, North of Maler Road

**Orientation:** North-South

**Date of Count:** Thursday, May 29, 2014

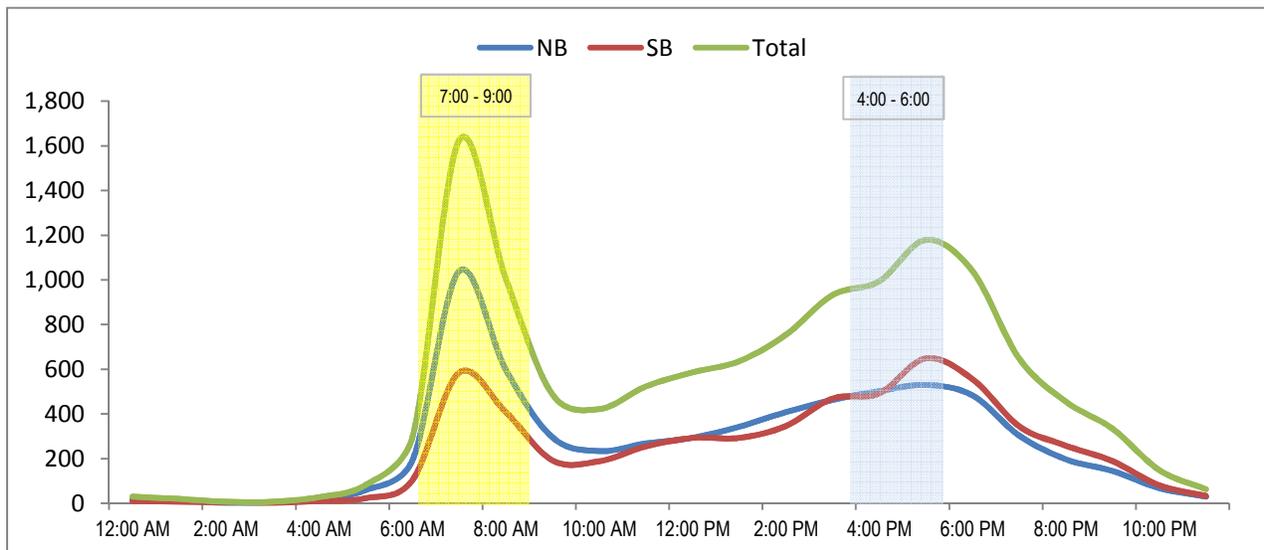
**Analysts:** DASH

**Weather:** Sunny

**AVC Proj. No:** 14-0210

24 Hour Segment Volume					12,303		
Time	Hourly Volume			Time	Hourly Volume		
	NB	SB	Total		NB	SB	Total
12:00 AM - 1:00 AM	19	11	30	12:00 PM - 1:00 PM	293	293	586
1:00 AM - 2:00 AM	13	7	20	1:00 PM - 2:00 PM	343	293	636
2:00 AM - 3:00 AM	2	5	7	2:00 PM - 3:00 PM	408	346	754
3:00 AM - 4:00 AM	5	2	7	3:00 PM - 4:00 PM	463	469	932
4:00 AM - 5:00 AM	17	11	28	4:00 PM - 5:00 PM	502	492	994
5:00 AM - 6:00 AM	60	23	83	5:00 PM - 6:00 PM	530	649	1,179
6:00 AM - 7:00 AM	193	104	297	6:00 PM - 7:00 PM	483	556	1,039
7:00 AM - 8:00 AM	1,039	585	1,624	7:00 PM - 8:00 PM	303	345	648
8:00 AM - 9:00 AM	598	408	1,006	8:00 PM - 9:00 PM	197	258	455
9:00 AM - 10:00 AM	295	192	487	9:00 PM - 10:00 PM	145	189	334
10:00 AM - 11:00 AM	234	188	422	10:00 PM - 11:00 PM	68	81	149
11:00 AM - 12:00 PM	268	255	523	11:00 PM - 12:00 AM	30	33	63
<b>Total</b>	<b>2,743</b>	<b>1,791</b>	<b>4,534</b>	<b>Total</b>	<b>3,765</b>	<b>4,004</b>	<b>7,769</b>

**24-Hour NB Volume 6,508**      **24-Hour SB Volume 5,795**





PARK ENT N-O CARMEL VALLEY

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
00:00	1	1			12:00	2	2			
00:15	0	0			12:15	3	1			
00:30	0	0			12:30	1	5			
00:45	0	1	0	1	12:45	1	7	1	9	
01:00	0	0			13:00	7	4			
01:15	0	0			13:15	3	2			
01:30	0	0			13:30	3	4			
01:45	0	0	0	0	13:45	4	17	4	14	
02:00	0	0			14:00	1	1			
02:15	0	0			14:15	1	3			
02:30	0	0			14:30	2	1			
02:45	0	0	0	0	14:45	5	9	4	9	
03:00	0	0			15:00	5	4			
03:15	0	0			15:15	1	4			
03:30	0	0			15:30	2	4			
03:45	0	0	0	0	15:45	9	17	2	14	
04:00	0	0			16:00	2	2			
04:15	0	0			16:15	10	4			
04:30	0	0			16:30	12	5			
04:45	0	0	0	0	16:45	38	62	23	34	
05:00	0	0			17:00	8	10			
05:15	0	0			17:15	16	3			
05:30	0	0			17:30	25	22			
05:45	0	0	0	0	17:45	23	72	10	45	
06:00	0	0			18:00	9	9			
06:15	3	0			18:15	28	12			
06:30	1	0			18:30	14	31			
06:45	1	5	1	1	18:45	7	58	20	72	
07:00	2	1			19:00	6	3			
07:15	2	3			19:15	15	19			
07:30	2	2			19:30	5	28			
07:45	0	6	0	6	19:45	7	33	4	54	
08:00	3	2			20:00	6	17			
08:15	4	3			20:15	1	3			
08:30	2	0			20:30	1	3			
08:45	3	12	4	9	20:45	0	8	2	25	
09:00	3	5			21:00	0	1			
09:15	1	2			21:15	2	0			
09:30	5	2			21:30	2	7			
09:45	6	15	3	12	21:45	0	4	3	11	
10:00	2	5			22:00	2	2			
10:15	2	4			22:15	0	0			
10:30	0	3			22:30	0	0			
10:45	1	5	2	14	22:45	0	2	0	2	
11:00	1	4			23:00	0	0			
11:15	4	2			23:15	0	0			
11:30	1	1			23:30	0	0			
11:45	2	8	1	8	23:45	0	0	0	0	
<b>Total Vol.</b>	52	51		<b>103</b>		289	289		<b>578</b>	
								<b>Daily Totals</b>		
						NB	SB	EB	WB	<b>Combined</b>
						341	340			<b>681</b>
								<b>PM</b>		
<b>Split %</b>	50.5%	49.5%		<b>15.1%</b>		50.0%	50.0%			<b>84.9%</b>
<b>Peak Hour</b>	09:00	09:45		<b>09:30</b>		16:45	18:30			<b>16:45</b>
<b>Volume</b>	15	15		<b>29</b>		87	73			<b>145</b>
<b>P.H.F.</b>	0.63	0.75		<b>0.81</b>		0.51	0.59			<b>0.59</b>

CARMEL VALLEY E-O PARK ENT

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			5	8	12:00			80	67			
00:15			1	4	12:15			108	60			
00:30			7	2	12:30			97	85			
00:45			6	19	1	15	34	84	369	88	300	669
01:00			1	3	13:00			89	62			
01:15			0	2	13:15			98	66			
01:30			2	3	13:30			81	62			
01:45			1	4	2	10	14	75	343	91	281	624
02:00			0	3	14:00			94	80			
02:15			0	0	14:15			89	84			
02:30			0	1	14:30			120	85			
02:45			0	0	2	6	6	134	437	97	346	783
03:00			4	0	15:00			144	96			
03:15			2	2	15:15			160	90			
03:30			1	1	15:30			200	125			
03:45			2	9	4	7	16	203	707	114	425	1132
04:00			2	5	16:00			151	101			
04:15			1	1	16:15			223	116			
04:30			7	4	16:30			284	135			
04:45			8	18	5	15	33	251	909	148	500	1409
05:00			10	7	17:00			223	159			
05:15			15	15	17:15			268	162			
05:30			19	22	17:30			251	199			
05:45			27	71	29	73	144	255	997	175	695	1692
06:00			23	41	18:00			254	184			
06:15			42	77	18:15			238	142			
06:30			47	80	18:30			220	126			
06:45			84	196	140	338	534	184	896	110	562	1458
07:00			121	251	19:00			157	81			
07:15			158	266	19:15			103	88			
07:30			191	231	19:30			112	94			
07:45			144	614	225	973	1587	78	450	70	333	783
08:00			156	284	20:00			64	62			
08:15			118	226	20:15			53	51			
08:30			135	180	20:30			54	77			
08:45			119	528	154	844	1372	56	227	62	252	479
09:00			110	130	21:00			58	42			
09:15			112	88	21:15			35	40			
09:30			75	105	21:30			26	45			
09:45			79	376	66	389	765	35	154	28	155	309
10:00			61	61	22:00			27	21			
10:15			65	70	22:15			21	22			
10:30			72	62	22:30			14	11			
10:45			69	267	69	262	529	9	71	7	61	132
11:00			69	88	23:00			13	10			
11:15			70	71	23:15			9	8			
11:30			83	84	23:30			3	6			
11:45			120	342	95	338	680	6	31	7	31	62
<b>Total Vol.</b>			2444	3270	<b>5714</b>			5591	3941	<b>9532</b>		
								<b>Daily Totals</b>				
								NB	SB	EB	WB	<b>Combined</b>
										8035	7211	<b>15246</b>
										<b>AM</b>		
<b>Split %</b>			42.8%	57.2%	<b>37.5%</b>					<b>PM</b>		
								58.7%	41.3%	<b>62.5%</b>		
<b>Peak Hour</b>			07:15	07:15	<b>07:15</b>			17:15	17:15	<b>17:15</b>		
<b>Volume</b>			649	1006	<b>1655</b>			1028	720	<b>1748</b>		
<b>P.H.F.</b>			0.85	0.89	<b>0.94</b>			0.96	0.90	<b>0.97</b>		

CARMEL VALLEY W-O CHARDONAY

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB				
00:00			5	4	12:00			78	59				
00:15			2	4	12:15			65	70				
00:30			3	1	12:30			60	63				
00:45			4	14	2	11	25	60	263	60	252	515	
01:00			3	0	13:00			65	57				
01:15			2	2	13:15			84	72				
01:30			0	1	13:30			80	60				
01:45			0	5	1	4	9	67	296	95	284	580	
02:00			2	1	14:00			87	76				
02:15			2	0	14:15			79	83				
02:30			3	1	14:30			117	82				
02:45			1	8	1	3	11	112	395	72	313	708	
03:00			0	3	15:00			144	95				
03:15			1	1	15:15			151	97				
03:30			1	1	15:30			191	86				
03:45			0	2	1	6	8	173	659	74	352	1011	
04:00			2	1	16:00			170	66				
04:15			2	1	16:15			186	68				
04:30			0	5	16:30			209	75				
04:45			1	5	4	11	16	275	840	85	294	1134	
05:00			3	9	17:00			215	94				
05:15			10	8	17:15			202	97				
05:30			12	18	17:30			199	82				
05:45			10	35	26	61	96	232	848	74	347	1195	
06:00			12	32	18:00			221	75				
06:15			24	53	18:15			141	75				
06:30			23	98	18:30			113	78				
06:45			36	95	105	288	383	119	594	50	278	872	
07:00			55	157	19:00			116	41				
07:15			58	260	19:15			56	43				
07:30			98	295	19:30			50	48				
07:45			100	311	208	920	1231	54	276	38	170	446	
08:00			99	266	20:00			38	47				
08:15			78	315	20:15			36	45				
08:30			130	270	20:30			33	30				
08:45			79	386	259	1110	1496	34	141	29	151	292	
09:00			65	172	21:00			30	21				
09:15			66	123	21:15			35	19				
09:30			61	81	21:30			25	24				
09:45			64	256	84	460	716	19	109	16	80	189	
10:00			49	59	22:00			16	18				
10:15			45	48	22:15			17	16				
10:30			48	57	22:30			14	8				
10:45			48	190	52	216	406	9	56	4	46	102	
11:00			51	63	23:00			9	8				
11:15			55	55	23:15			10	13				
11:30			74	54	23:30			5	8				
11:45			79	259	55	227	486	5	29	2	31	60	
<b>Total Vol.</b>			1566	3317	<b>4883</b>			4506	2598	<b>7104</b>			
								<b>Daily Totals</b>					
								NB	SB	EB	WB	Combined	
										6072	5915	11987	
								<b>AM</b>			<b>PM</b>		
<b>Split %</b>			32.1%	67.9%	<b>40.7%</b>			63.4%	36.6%	<b>59.3%</b>			
<b>Peak Hour</b>			07:45	08:00	<b>08:00</b>			16:30	16:45	<b>16:30</b>			
<b>Volume</b>			407	1110	<b>1496</b>			901	358	<b>1252</b>			
<b>P.H.F.</b>			0.78	0.88	<b>0.94</b>			0.82	0.92	<b>0.87</b>			



CARMEL VALLEY E-O CHARDONAY

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			6	4	12:00			74	58			
00:15			2	4	12:15			62	66			
00:30			2	1	12:30			61	64			
00:45			4	14	12:45			57	254	61	249	503
01:00			3	1	13:00			66	56			
01:15			2	2	13:15			86	68			
01:30			0	1	13:30			79	63			
01:45			0	5	13:45			71	302	102	289	591
02:00			2	1	14:00			88	71			
02:15			2	0	14:15			80	78			
02:30			3	1	14:30			118	79			
02:45			1	8	14:45			113	399	72	300	699
03:00			0	3	15:00			139	90			
03:15			0	1	15:15			154	90			
03:30			1	1	15:30			178	85			
03:45			1	2	15:45			171	642	79	344	986
04:00			2	0	16:00			167	68			
04:15			1	1	16:15			192	70			
04:30			0	4	16:30			217	74			
04:45			1	4	16:45			265	841	91	303	1144
05:00			6	8	17:00			226	95			
05:15			11	8	17:15			201	103			
05:30			13	17	17:30			215	91			
05:45			13	43	17:45			257	899	81	370	1269
06:00			15	32	18:00			222	84			
06:15			24	51	18:15			146	85			
06:30			24	99	18:30			116	72			
06:45			37	100	18:45			113	597	53	294	891
07:00			63	161	19:00			108	45			
07:15			63	263	19:15			60	48			
07:30			106	281	19:30			47	50			
07:45			105	337	19:45			49	264	40	183	447
08:00			98	280	20:00			36	43			
08:15			87	304	20:15			33	44			
08:30			143	268	20:30			34	30			
08:45			82	410	20:45			34	137	28	145	282
09:00			63	175	21:00			29	19			
09:15			67	127	21:15			33	26			
09:30			62	78	21:30			23	29			
09:45			69	261	21:45			17	102	18	92	194
10:00			44	58	22:00			16	18			
10:15			43	47	22:15			15	16			
10:30			53	59	22:30			14	9			
10:45			47	187	22:45			10	55	4	47	102
11:00			52	55	23:00			8	8			
11:15			57	52	23:15			10	12			
11:30			74	54	23:30			4	8			
11:45			73	256	23:45			4	26	2	30	56
<b>Total Vol.</b>			1627	3310	<b>4937</b>			4518	2646	<b>7164</b>		
								<b>Daily Totals</b>				
								NB	SB	EB	WB	Combined
										6145	5956	12101
										<b>AM</b>		
<b>Split %</b>			33.0%	67.0%	<b>40.8%</b>					<b>PM</b>		
								63.1%	36.9%	<b>59.2%</b>		
<b>Peak Hour</b>			07:45	08:00	<b>08:00</b>			16:30	16:45	<b>16:45</b>		
<b>Volume</b>			433	1136	<b>1546</b>			909	380	<b>1287</b>		
<b>P.H.F.</b>			0.76	0.93	<b>0.94</b>			0.86	0.92	<b>0.90</b>		



CARMEL VALLEY W-O TORREY DEL MAR

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			7	4	12:00			80	88			
00:15			5	3	12:15			70	70			
00:30			4	1	12:30			77	71			
00:45			3	19	0	8	27	81	308	88	317	625
01:00			2	0	13:00			76	65			
01:15			1	1	13:15			68	75			
01:30			1	0	13:30			81	60			
01:45			0	4	0	1	5	65	290	66	266	556
02:00			1	1	14:00			70	78			
02:15			1	2	14:15			84	84			
02:30			0	1	14:30			65	70			
02:45			2	4	1	5	9	74	293	69	301	594
03:00			1	0	15:00			81	77			
03:15			0	1	15:15			126	74			
03:30			2	1	15:30			119	65			
03:45			3	6	0	2	8	131	457	65	281	738
04:00			1	2	16:00			148	70			
04:15			0	1	16:15			184	84			
04:30			0	3	16:30			160	65			
04:45			2	3	5	11	14	185	677	77	296	973
05:00			1	8	17:00			141	61			
05:15			2	10	17:15			162	94			
05:30			3	14	17:30			184	95			
05:45			4	10	33	65	75	168	655	70	320	975
06:00			5	28	18:00			170	77			
06:15			10	44	18:15			117	84			
06:30			25	77	18:30			89	51			
06:45			22	62	116	265	327	95	471	62	274	745
07:00			30	121	19:00			68	55			
07:15			31	155	19:15			60	40			
07:30			44	160	19:30			51	43			
07:45			62	167	175	611	778	49	228	40	178	406
08:00			62	135	20:00			50	28			
08:15			58	162	20:15			41	26			
08:30			61	178	20:30			55	21			
08:45			70	251	180	655	906	35	181	22	97	278
09:00			66	162	21:00			28	23			
09:15			70	141	21:15			20	31			
09:30			55	121	21:30			19	28			
09:45			68	259	130	554	813	22	89	12	94	183
10:00			51	88	22:00			20	14			
10:15			60	90	22:15			18	10			
10:30			54	81	22:30			16	9			
10:45			40	205	77	336	541	21	75	3	36	111
11:00			61	68	23:00			11	5			
11:15			70	70	23:15			5	4			
11:30			77	78	23:30			5	3			
11:45			62	270	75	291	561	1	22	4	16	38

<b>Total Vol.</b>			1260	2804	<b>4064</b>			3746	2476	<b>6222</b>
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		<b>Daily Totals</b>				
		NB	SB	EB	WB	Combined
				5006	5280	<b>10286</b>

	<b>AM</b>			<b>PM</b>		
<b>Split %</b>	31.0%	69.0%	<b>39.5%</b>	60.2%	39.8%	<b>60.5%</b>
<b>Peak Hour</b>	11:15	08:15	<b>08:15</b>	17:15	17:15	<b>17:15</b>
<b>Volume</b>	289	682	<b>937</b>	684	336	<b>1020</b>
<b>P.H.F.</b>	0.90	0.95	<b>0.94</b>	0.93	0.88	<b>0.91</b>

CARMEL VALLEY E-O TORREY DEL MAR

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			4	6	12:00			77	66			
00:15			3	3	12:15			60	62			
00:30			2	2	12:30			66	70			
00:45			1	10	1	12	22	70	273	78	276	549
01:00			4	0	13:00			71	51			
01:15			2	1	13:15			84	62			
01:30			1	2	13:30			95	70			
01:45			0	7	2	5	12	70	320	91	274	594
02:00			2	1	14:00			80	88			
02:15			1	0	14:15			77	81			
02:30			2	0	14:30			121	70			
02:45			2	7	2	3	10	118	396	75	314	710
03:00			0	1	15:00			151	91			
03:15			2	2	15:15			162	99			
03:30			1	0	15:30			170	81			
03:45			0	3	1	4	7	184	667	78	349	1016
04:00			2	2	16:00			181	62			
04:15			1	2	16:15			177	62			
04:30			0	4	16:30			212	77			
04:45			0	3	5	13	16	268	838	81	282	1120
05:00			2	11	17:00			232	95			
05:15			8	8	17:15			215	84			
05:30			11	20	17:30			202	96			
05:45			9	30	22	61	91	226	875	78	353	1228
06:00			10	31	18:00			215	80			
06:15			21	58	18:15			161	62			
06:30			25	90	18:30			111	77			
06:45			33	89	115	294	383	132	619	51	270	889
07:00			49	161	19:00			108	40			
07:15			58	268	19:15			60	35			
07:30			99	285	19:30			51	44			
07:45			111	317	215	929	1246	66	285	42	161	446
08:00			105	277	20:00			30	41			
08:15			80	305	20:15			33	38			
08:30			125	284	20:30			35	31			
08:45			88	398	262	1128	1526	40	138	30	140	278
09:00			70	180	21:00			35	15			
09:15			69	121	21:15			28	18			
09:30			77	98	21:30			21	20			
09:45			65	281	80	479	760	20	104	18	71	175
10:00			52	66	22:00			19	20			
10:15			55	54	22:15			20	15			
10:30			44	50	22:30			11	11			
10:45			48	199	62	232	431	11	61	7	53	114
11:00			55	65	23:00			9	6			
11:15			52	60	23:15			10	10			
11:30			70	51	23:30			6	7			
11:45			76	253	66	242	495	7	32	3	26	58
<b>Total Vol.</b>			1597	3402	<b>4999</b>			4608	2569	<b>7177</b>		
								<b>Daily Totals</b>				
								NB	SB	EB	WB	Combined
										6205	5971	12176
										<b>AM</b>		
<b>Split %</b>			31.9%	68.1%	<b>41.1%</b>					<b>PM</b>		
								64.2%	35.8%	<b>58.9%</b>		
<b>Peak Hour</b>			07:45	08:00	<b>08:00</b>			16:30	16:45	<b>16:45</b>		
<b>Volume</b>			421	1128	<b>1526</b>			927	356	<b>1273</b>		
<b>P.H.F.</b>			0.84	0.92	<b>0.93</b>			0.86	0.93	<b>0.91</b>		



CARMEL VALLEY E-O BLACK MTN / PARK ENT

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			11	12	12:00			82	91			
00:15			12	8	12:15			82	84			
00:30			9	15	12:30			101	84			
00:45			6	38	11	46	84	89	354	78	337	691
01:00			6	9	13:00			91	78			
01:15			3	7	13:15			104	78			
01:30			5	5	13:30			81	80			
01:45			4	18	1	22	40	76	352	67	303	655
02:00			1	0	14:00			99	57			
02:15			3	2	14:15			84	72			
02:30			2	1	14:30			108	57			
02:45			1	7	0	3	10	93	384	82	268	652
03:00			0	1	15:00			87	52			
03:15			0	2	15:15			106	80			
03:30			1	4	15:30			137	82			
03:45			2	3	5	12	15	147	477	98	312	789
04:00			1	6	16:00			155	121			
04:15			2	4	16:15			151	103			
04:30			1	12	16:30			174	126			
04:45			1	5	9	31	36	179	659	131	481	1140
05:00			11	15	17:00			207	115			
05:15			10	12	17:15			198	152			
05:30			25	18	17:30			225	128			
05:45			11	57	20	65	122	244	874	122	517	1391
06:00			29	32	18:00			256	123			
06:15			22	32	18:15			215	104			
06:30			36	40	18:30			244	88			
06:45			56	143	50	154	297	179	894	95	410	1304
07:00			68	66	19:00			155	121			
07:15			62	65	19:15			153	103			
07:30			98	70	19:30			133	84			
07:45			94	322	88	289	611	103	544	95	403	947
08:00			88	125	20:00			93	65			
08:15			94	131	20:15			80	55			
08:30			105	175	20:30			59	40			
08:45			116	403	162	593	996	58	290	35	195	485
09:00			103	184	21:00			47	40			
09:15			141	191	21:15			49	62			
09:30			128	212	21:30			35	44			
09:45			128	500	169	756	1256	34	165	40	186	351
10:00			105	151	22:00			30	28			
10:15			79	140	22:15			28	30			
10:30			70	131	22:30			29	25			
10:45			84	338	125	547	885	27	114	21	104	218
11:00			85	88	23:00			20	18			
11:15			69	91	23:15			25	20			
11:30			77	77	23:30			19	22			
11:45			92	323	88	344	667	12	76	15	75	151

**Total Vol.** 2157 2862 **5019** 5183 3591 **8774**

Daily Totals				
NB	SB	EB	WB	Combined
		7340	6453	<b>13793</b>

Split %	AM			PM		
	43.0%	57.0%	<b>36.4%</b>	59.1%	40.9%	<b>63.6%</b>
<b>Peak Hour</b>	09:15	09:00	<b>09:00</b>	17:45	16:45	<b>17:15</b>
<b>Volume</b>	502	756	<b>1256</b>	959	526	<b>1448</b>
<b>P.H.F.</b>	0.89	0.89	<b>0.92</b>	0.94	0.87	<b>0.96</b>

CARMEL VALLEY W-O BLACK MTN

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			11	9	12:00			43	72			
00:15			14	5	12:15			48	67			
00:30			5	1	12:30			46	76			
00:45			4	34	3	18	52	40	177	56	271	448
01:00			6	3	13:00			40	73			
01:15			3	1	13:15			50	55			
01:30			2	2	13:30			28	67			
01:45			3	14	2	8	22	29	147	69	264	411
02:00			0	1	14:00			39	43			
02:15			1	0	14:15			43	59			
02:30			1	2	14:30			65	53			
02:45			2	4	0	3	7	34	181	50	205	386
03:00			1	1	15:00			53	62			
03:15			0	0	15:15			72	56			
03:30			0	1	15:30			71	57			
03:45			1	2	0	2	4	105	301	58	233	534
04:00			0	4	16:00			141	58			
04:15			0	4	16:15			168	66			
04:30			0	3	16:30			189	81			
04:45			1	1	6	17	18	196	694	70	275	969
05:00			2	4	17:00			215	78			
05:15			7	8	17:15			262	115			
05:30			6	9	17:30			212	94			
05:45			3	18	20	41	59	218	907	88	375	1282
06:00			6	37	18:00			192	95			
06:15			8	44	18:15			143	85			
06:30			14	67	18:30			163	114			
06:45			23	51	82	230	281	121	619	69	363	982
07:00			44	121	19:00			98	82			
07:15			55	168	19:15			102	66			
07:30			68	178	19:30			85	69			
07:45			51	218	190	657	875	54	339	44	261	600
08:00			60	184	20:00			69	52			
08:15			78	212	20:15			65	54			
08:30			81	219	20:30			29	44			
08:45			60	279	179	794	1073	40	203	48	198	401
09:00			84	170	21:00			28	32			
09:15			56	155	21:15			34	33			
09:30			38	134	21:30			31	45			
09:45			61	239	91	550	789	23	116	24	134	250
10:00			57	68	22:00			26	25			
10:15			47	80	22:15			17	9			
10:30			27	67	22:30			15	13			
10:45			8	139	71	286	425	25	83	16	63	146
11:00			14	75	23:00			21	8			
11:15			26	44	23:15			13	11			
11:30			37	70	23:30			27	4			
11:45			43	120	62	251	371	9	70	11	34	104

<b>Total Vol.</b>			1119	2857	<b>3976</b>			3837	2676	<b>6513</b>
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Daily Totals				
NB	SB	EB	WB	Combined
		4956	5533	<b>10489</b>

Split %	AM			PM		
	NB	SB	Combined	NB	SB	Combined
	28.1%	71.9%	<b>37.9%</b>	58.9%	41.1%	<b>62.1%</b>
<b>Peak Hour</b>	08:15	07:45	<b>08:15</b>	17:00	17:15	<b>17:00</b>
<b>Volume</b>	303	805	<b>1083</b>	907	392	<b>1282</b>
<b>P.H.F.</b>	0.90	0.92	<b>0.90</b>	0.87	0.85	<b>0.85</b>

**Attachment 6**

**“Segment Counts (ADT)”**

**Pg. 46 - 50**



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TECHNICAL DATA

**DATE:**  
10/29/14  
WEDNESDAY

**LOCATION:**  
NORTH & SOUTH:  
EAST & WEST:

**RANCHO PENASQUITOS**  
**PARK ENT**  
**CARMEL VALLEY**

**PROJECT #:** PTD14-1031-01  
**LOCATION #:** 2  
**CONTROL:** SIGNAL

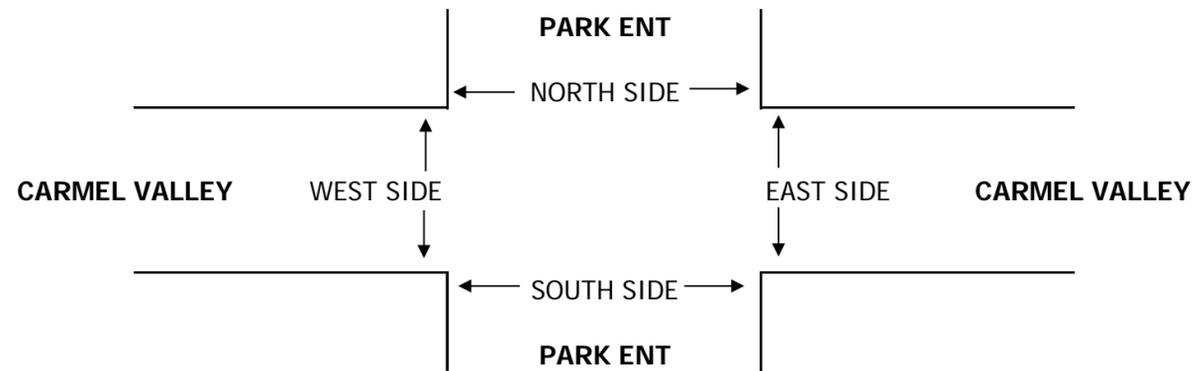
NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▶ E	
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LANES:	NORTHBOUND PARK ENT			SOUTHBOUND PARK ENT			EASTBOUND CARMEL VALLEY			WESTBOUND CARMEL VALLEY			TOTAL
	NL X	NT X	NR X	SL	ST X	SR	EL 1	ET 2	ER X	WL X	WT 2	WR 0	

U-TURNS				
NB X	SB X	EB X	WB X	TTL

AM	7:00 AM				0		1	2	116			243	0	362
	7:15 AM				0		3	2	166			265	0	436
	7:30 AM				0		2	1	194			232	0	429
	7:45 AM				1		0	0	138			217	0	356
	8:00 AM				0		1	1	152			271	2	427
	8:15 AM				1		2	2	119			223	1	348
	8:30 AM				0		0	1	122			185	2	310
	8:45 AM				0		4	1	130			161	2	298
	VOLUMES	0	0	0	2	0	13	10	1,137	0	0	1,797	7	2,966
	APPROACH %	0%	0%	0%	13%	0%	87%	1%	99%	0%	0%	100%	0%	
APP/DEPART	0	/	17	15	/	0	1,147	/	1,139	1,804	/	1,810	0	
BEGIN PEAK HR	7:15 AM													
VOLUMES	0	0	0	1	0	6	4	650	0	0	985	2	1,648	
APPROACH %	0%	0%	0%	14%	0%	86%	1%	99%	0%	0%	100%	0%		
PEAK HR FACTOR	0.000			0.583			0.838			0.904			0.945	
APP/DEPART	0	/	6	7	/	0	654	/	651	987	/	991	0	
PM	4:00 PM				0		2	1	146			108	0	257
	4:15 PM				1		3	8	223			105	1	341
	4:30 PM				1		3	10	277			130	3	424
	4:45 PM				14		9	15	238			121	22	419
	5:00 PM				8		3	5	220			143	4	383
	5:15 PM				1		1	7	252			149	8	418
	5:30 PM				13		10	8	243			195	16	485
	5:45 PM				5		4	14	252			154	10	439
	VOLUMES	0	0	0	43	0	35	68	1,851	0	0	1,105	64	3,166
	APPROACH %	0%	0%	0%	55%	0%	45%	4%	96%	0%	0%	95%	5%	
APP/DEPART	0	/	132	78	/	0	1,919	/	1,894	1,169	/	1,140	0	
BEGIN PEAK HR	5:00 PM													
VOLUMES	0	0	0	27	0	18	34	967	0	0	641	38	1,725	
APPROACH %	0%	0%	0%	60%	0%	40%	3%	97%	0%	0%	94%	6%		
PEAK HR FACTOR	0.000			0.489			0.941			0.805			0.889	
APP/DEPART	0	/	72	45	/	0	1,001	/	994	679	/	659	0	

				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0



AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
	TOTAL
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
	TOTAL

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
				0
				0
				0
				0
				0
				0
				0
1				1
1	0	0	0	1

PEDESTRIAN ACTIVATIONS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
1				1
1				1
				0
				0
				0
				0
				0
				0
				0
3				3
				0
5	0	0	0	5

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TECHNICAL DATA

<b>DATE:</b> 7/8/14 TUESDAY	LOCATION: NORTH & SOUTH: EAST & WEST:	RANCHO PENASQUITOS BLACK MTN CARMEL VALLEY	PROJECT #: PTD14-0711-01 LOCATION #: 1 CONTROL: SIGNAL
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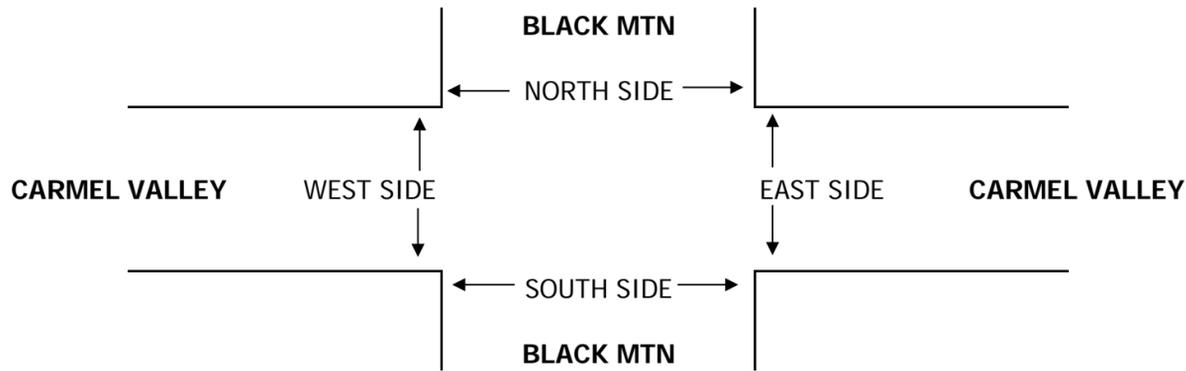
NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▶ E
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LANES:	NORTHBOUND BLACK MTN			SOUTHBOUND BLACK MTN			EASTBOUND CARMEL VALLEY			WESTBOUND CARMEL VALLEY			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	X	1	X	X	X	X	1	1	1	1	X	

U-TURNS				
NB	SB	EB	WB	TTL
X	X	1	X	

AM	7:00 AM	30		37				41	8	14	101		231	
	7:15 AM	42		52				41	10	22	115		282	
	7:30 AM	59		62				50	10	45	115		341	
	7:45 AM	81		65				41	18	41	112		358	
	8:00 AM	52		67				40	21	47	145		372	
	8:15 AM	69		79				53	18	49	138		406	
	8:30 AM	75		73				63	23	52	149		435	
	8:45 AM	60		66				54	15	44	126		365	
	VOLUMES	468	0	501	0	0	0	0	383	123	314	1,001	0	2,790
	APPROACH %	48%	0%	52%	0%	0%	0%	0%	76%	24%	24%	76%	0%	
APP/DEPART	969	/	0	0	/	437	506	/	884	1,315	/	1,469	0	
BEGIN PEAK HR	8:00 AM													
VOLUMES	256	0	285	0	0	0	0	210	77	192	558	0	1,578	
APPROACH %	47%	0%	53%	0%	0%	0%	0%	73%	27%	26%	74%	0%		
PEAK HR FACTOR	0.914			0.000			0.834			0.933			0.907	
APP/DEPART	541	/	0	0	/	269	287	/	495	750	/	814	0	
PM	4:00 PM	11		56				102	38	72	39		318	
	4:15 PM	19		57				117	35	61	44		333	
	4:30 PM	40		59				129	47	70	44		389	
	4:45 PM	35		66				135	60	88	42		426	
	5:00 PM	29		63				125	75	76	44		412	
	5:15 PM	38		57				182	67	82	67		493	
	5:30 PM	39		80				162	62	89	50		482	
	5:45 PM	28		100				157	70	81	55		491	
	VOLUMES	239	0	538	0	0	0	0	1,109	454	619	385	0	3,344
	APPROACH %	31%	0%	69%	0%	0%	0%	0%	71%	29%	62%	38%	0%	
APP/DEPART	777	/	0	0	/	1,073	1,563	/	1,647	1,004	/	624	0	
BEGIN PEAK HR	5:00 PM													
VOLUMES	134	0	300	0	0	0	0	626	274	328	216	0	1,878	
APPROACH %	31%	0%	69%	0%	0%	0%	0%	70%	30%	60%	40%	0%		
PEAK HR FACTOR	0.848			0.000			0.904			0.913			0.952	
APP/DEPART	434	/	0	0	/	602	900	/	926	544	/	350	0	

			1	1
		2		2
			1	1
		2		2
			1	1
			1	1
				0
0	0	4	4	8
0	0	3	0	3



AM	7:00 AM				
	7:15 AM				
	7:30 AM				
	7:45 AM				
	8:00 AM				
	8:15 AM				
	8:30 AM				
	8:45 AM				
	TOTAL				
PM	4:00 PM				
	4:15 PM				
	4:30 PM				
	4:45 PM				
	5:00 PM				
	5:15 PM				
	5:30 PM				
	5:45 PM				
	TOTAL				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
		1		1
	1			1
	1			1
	1			1
				0
				0
0	3	1	0	4
	1			1
0	1	0	0	1

PEDESTRIAN ACTIVATIONS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0
				0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
				0
				0
				0
				0
	2			2
	1	1		2
				0
	1			1
0	4	1	0	5
				0
				0
				0
				0
	1			1
				0
	4			4
0	5	0	0	5

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TECHNICAL DATA

<b>DATE:</b> 11/6/14 THURSDAY	<b>LOCATION:</b> NORTH & SOUTH: EAST & WEST:	<b>RANCHO PENASQUITOS</b> <b>TORREY DEL MAR</b> <b>CARMEL VALLEY</b>	<b>PROJECT #:</b> PTD14-1107-03 <b>LOCATION #:</b> 2 <b>CONTROL:</b> SIGNAL
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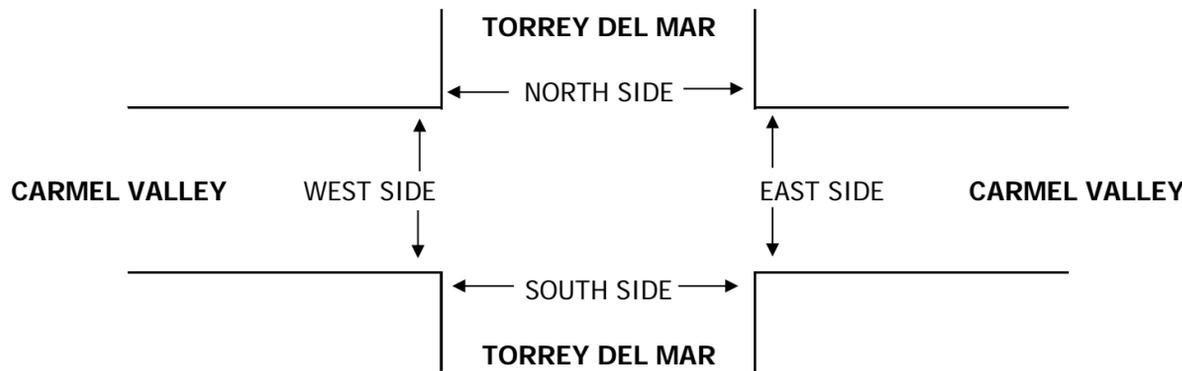
NOTES:	AM PM MD OTHER OTHER	▲ N ◀ W S ▶ E
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LANES:	NORTHBOUND TORREY DEL MAR			SOUTHBOUND TORREY DEL MAR			EASTBOUND CARMEL VALLEY			WESTBOUND CARMEL VALLEY			TOTAL
	NL 1	NT X	NR 1	SL X	ST X	SR X	EL 1	ET 2	ER 0	WL 1	WT 2	WR X	

U-TURNS				
NB	SB	EB	WB	TTL
X	X	X	X	

AM	7:00 AM	21		18				3	33	3	11	156		245
	7:15 AM	42		26				5	38	3	14	242		370
	7:30 AM	26		23				4	57	4	26	274		414
	7:45 AM	26		24				7	77	3	22	179		338
	8:00 AM	25		17				6	85	4	36	241		414
	8:15 AM	35		17				12	49	4	29	271		417
	8:30 AM	35		39				17	72	5	19	260		447
	8:45 AM	15		22				10	61	5	33	254		400
	VOLUMES	225	0	186	0	0	0	64	472	31	190	1,877	0	3,045
	APPROACH %	55%	0%	45%	0%	0%	0%	11%	83%	5%	9%	91%	0%	
APP/DEPART	411	/	64	0	/	221	567	/	658	2,067	/	2,102	0	
BEGIN PEAK HR	8:00 AM													
VOLUMES	110	0	95	0	0	0	45	267	18	117	1,026	0	1,678	
APPROACH %	54%	0%	46%	0%	0%	0%	14%	81%	5%	10%	90%	0%		
PEAK HR FACTOR	0.693			0.000			0.868			0.953			0.938	
APP/DEPART	205	/	45	0	/	135	330	/	362	1,143	/	1,136	0	
PM	4:00 PM	8		10				4	165	6	26	51		270
	4:15 PM	12		8				6	168	6	14	51		265
	4:30 PM	10		12				6	189	4	29	45		295
	4:45 PM	18		23				13	251	16	28	57		406
	5:00 PM	14		11				4	213	8	31	53		334
	5:15 PM	19		15				11	197	12	31	74		359
	5:30 PM	19		12				12	192	15	30	58		338
	5:45 PM	16		12				8	212	10	23	55		336
	VOLUMES	116	0	103	0	0	0	64	1,587	77	212	444	0	2,603
	APPROACH %	53%	0%	47%	0%	0%	0%	4%	92%	4%	32%	68%	0%	
APP/DEPART	219	/	64	0	/	289	1,728	/	1,690	656	/	560	0	
BEGIN PEAK HR	4:45 PM													
VOLUMES	70	0	61	0	0	0	40	853	51	120	242	0	1,437	
APPROACH %	53%	0%	47%	0%	0%	0%	4%	90%	5%	33%	67%	0%		
PEAK HR FACTOR	0.799			0.000			0.843			0.862			0.885	
APP/DEPART	131	/	40	0	/	171	944	/	914	362	/	312	0	

		3	8	11
		5	10	15
		4	14	18
		7	11	18
		6	22	28
		12	22	34
		17	11	28
		10	17	27
0	0	64	115	179
		4	11	15
		6	5	11
		6	7	13
		13	9	22
		4	0	4
		11	10	21
		12	10	22
		8	7	15
0	0	64	59	123



AM	7:00 AM
	7:15 AM
	7:30 AM
	7:45 AM
	8:00 AM
	8:15 AM
	8:30 AM
	8:45 AM
	TOTAL
PM	4:00 PM
	4:15 PM
	4:30 PM
	4:45 PM
	5:00 PM
	5:15 PM
	5:30 PM
	5:45 PM
	TOTAL

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

PEDESTRIAN ACTIVATIONS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
				0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
				0
				0
				0
				0
				0
				0
				0
				0
				0
0	0	0	0	0

